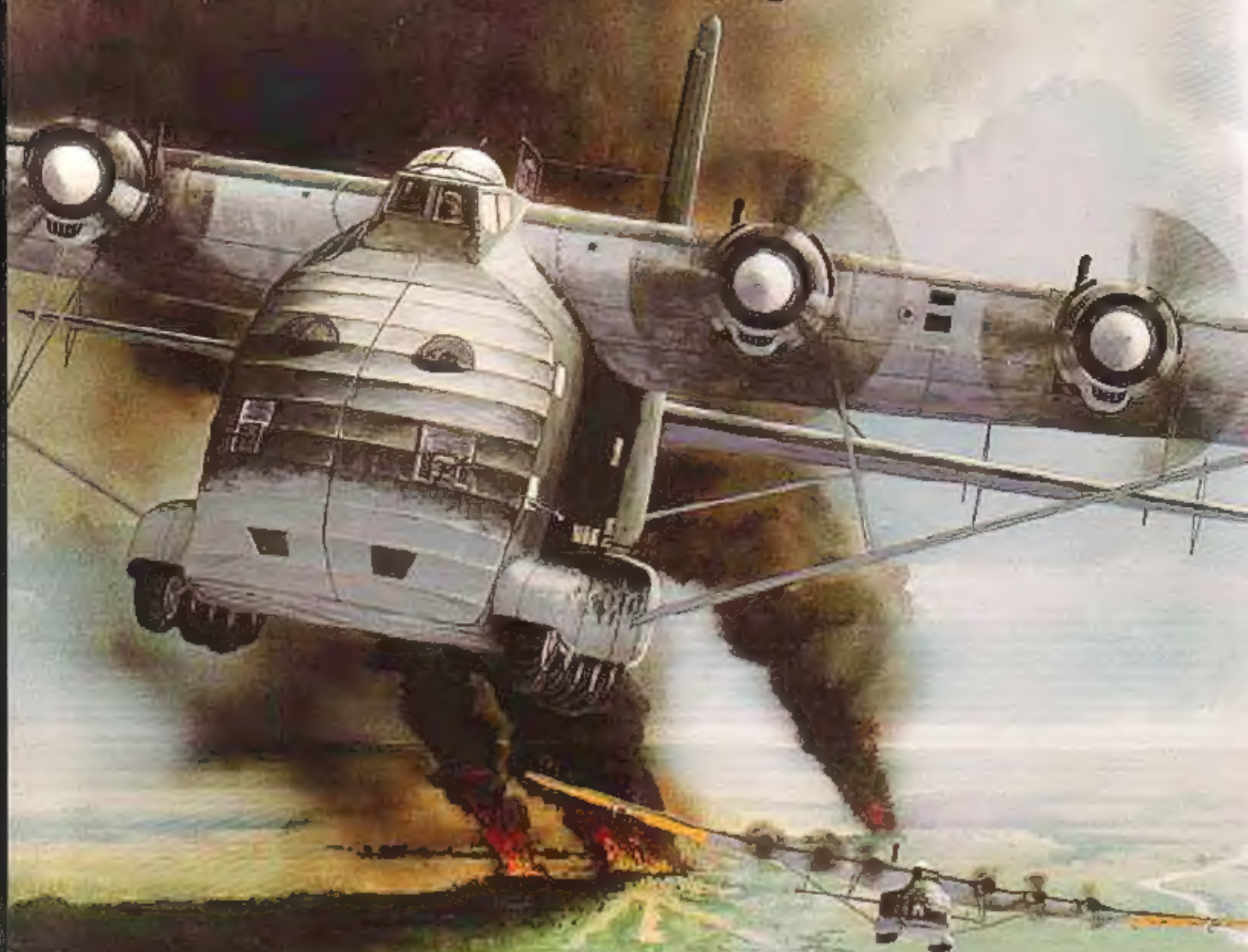
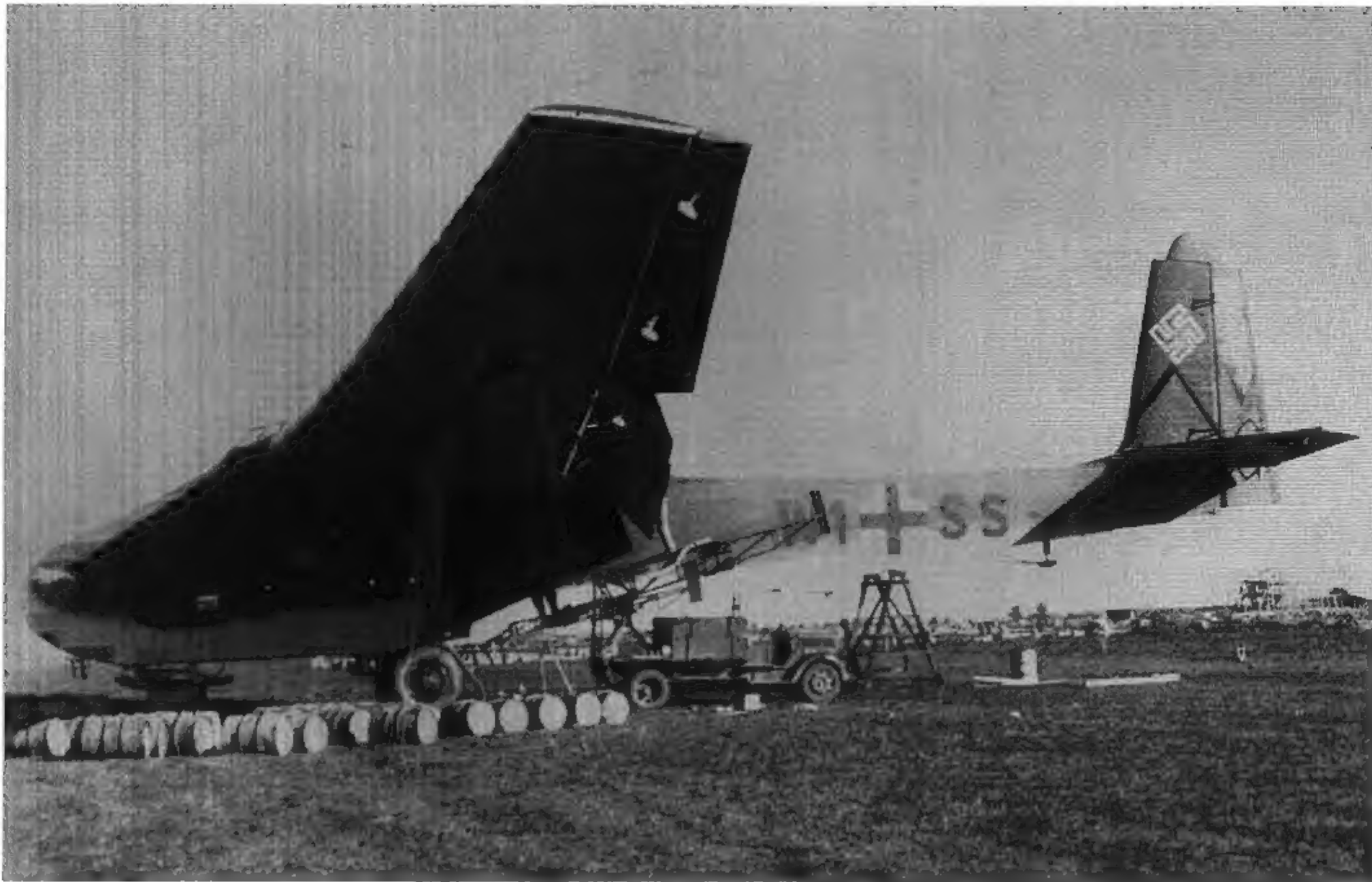


# MESSERSCHMITT Me 321/323



GIANTS OF THE LUFTWAFFE  
H.P. Dabrowski



An Me 321B anchored with wires and a maintenance vehicle.



# MESSERSCHMITT Me 321/323

## GIANTS OF THE LUFTWAFFE



The most common transport overflies the largest transport of the Luftwaffe. The Me 323 had approximately six times the transport capacity as the venerable "Tante" Ju 52. (PP)

H.P. Dabrowski

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Giants in Leipheim - in the background finished aircraft in the open.

### Photos:

Aders, Creek, Griehl, Hellwig (HWH), Koos (VK), Mathiesen (MBB), Nowarra (HJN), Peter (EP), Petrick (PP), Schmeelke, Schlaug, Selinger (FS).

Translated from the German by Curtis Bond.

Thanks to all who have helped with the production of this volume, especially Colonel Ernst Peter, Hans-Werner Hellwig, Gido Brandes and Siegfried Frick.

H.P. Dabrowski

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We are interested in hearing from authors with book ideas on related topics.

### Literature:

Ernst Peter, "...towed and flew giants," Motorbuch Verlag, Stuttgart 1976.

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Front cover artwork by Steve Ferguson, Colorado Springs, CO.

### GIANTS OF RUMANIA

The cover shows an Me 323-E1 Gigant in the lead of a TG 5 kette in late 1944, pulling away from their Rumanian landing field which has come under an artillery attack by advancing Russian units.

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# Giants of the Air

## Messerschmitt Me 321 and Me 323

### REMARKS

This volume deals with the Luftwaffe giants Me 321 and Me 323. Naturally, not everything concerning them is covered, and what is covered is in no way complete. That is not possible given the space constraints here. For a comprehensive history of the Giants, read the book "...towed and flew giants" by retired Oberst Ernst Peter, a former pilot of the headquarters squadron of the Number 1 Group/Transport Wing Number 5 (TG5) who was a part of this dramatic history.

### A GIANT PLAN

Completion of the transport requirements of the German Army's planned invasion of Great Britain required, among other items, use of heavy transports that would have been in the position to carry heavy and oversize equipment. Operations on the canal of Corinth, and the Belgian Eben Emael had shown that transport gliders could be successfully used and on Crete, the element of a surprise, silent delivery of men and materials played a large role. The gliders used then were comparatively small: The DFS 230 could carry 9 men and the Go 242 up to 21 men or a similar amount of equipment. In contrast, the planned gliders would transport entire companies of soldiers. Both aircraft works, Junkers and Messerschmitt, received the assignment to develop these

huge gliders. It was determined that the Junkers design would be wooden, and the Messerschmitt of tubular steel and other material. The Ju 322 Mammoth (Covername "Warsaw-East") was a failure for a number of reasons and will not be covered further in this work. The development was halted after a short evaluation.

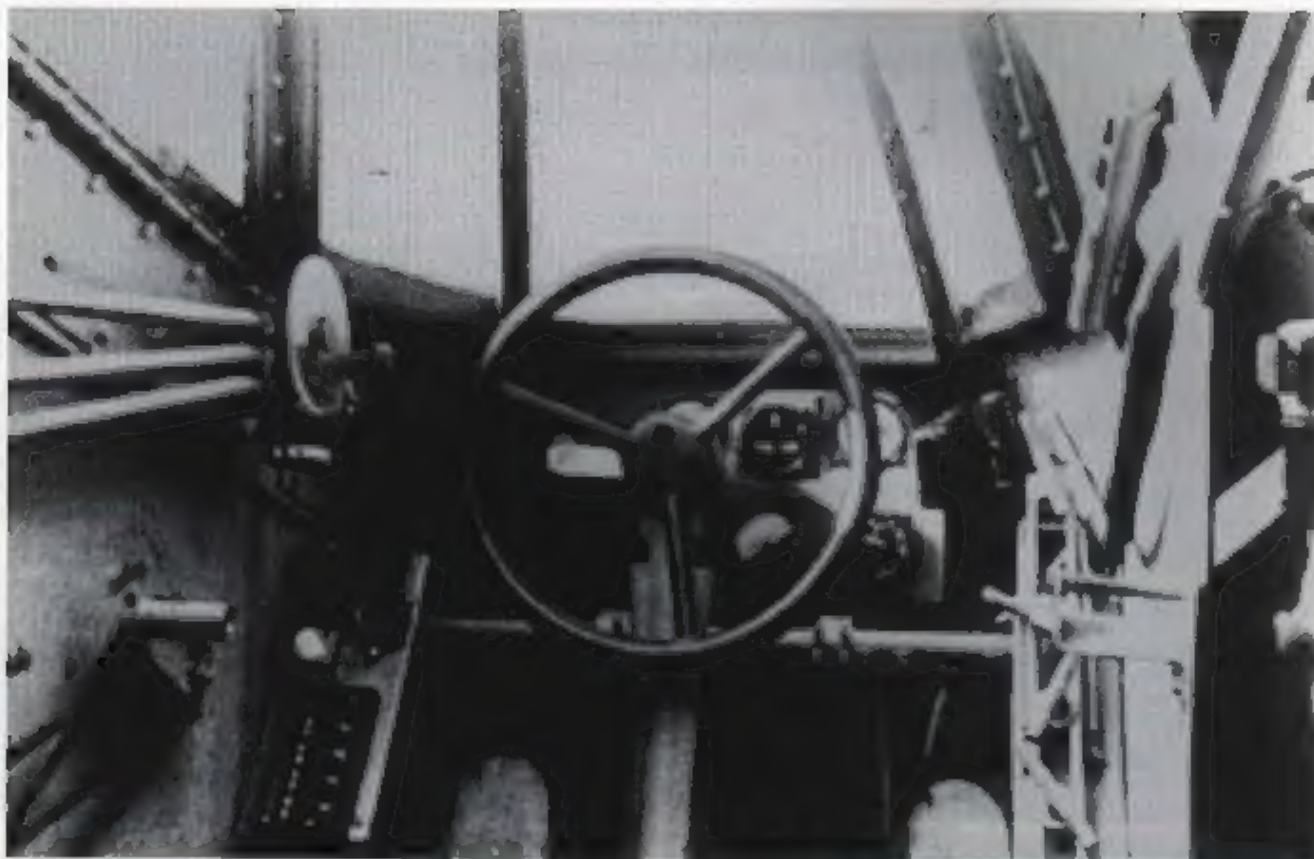
### ORIGIN OF THE HEAVY TRANSPORT GLIDER Me 321

The invasion of Great Britain (Operation "Sea Lion") was abandoned on 10 December 1940 because it was not possible to obtain air superiority over the island. The development of the Messerschmitt glider (Covername "Warsaw-South"), however, continued. Preliminary plans for the newly named Me 261 were presented to Hitler on 10 January 1940 and construction began on 11 June 1940. Twenty engineers worked under the direction of senior engineer Josef Frölich. In an overview drawing of 1 February 1941, the glider carries the designation Me 263. The designation Me 321 V1 Giant was used on 25 February 1941 for the aircraft's maiden flight with 3.6 tons of ballast. The Ju 90 was used as the towing aircraft. Messerschmitt test pilot Baur and observer Zeiler landed after an uneventful 22 minute flight. Baur's next flight was on 5 March. On 7 March Franke piloted the aircraft



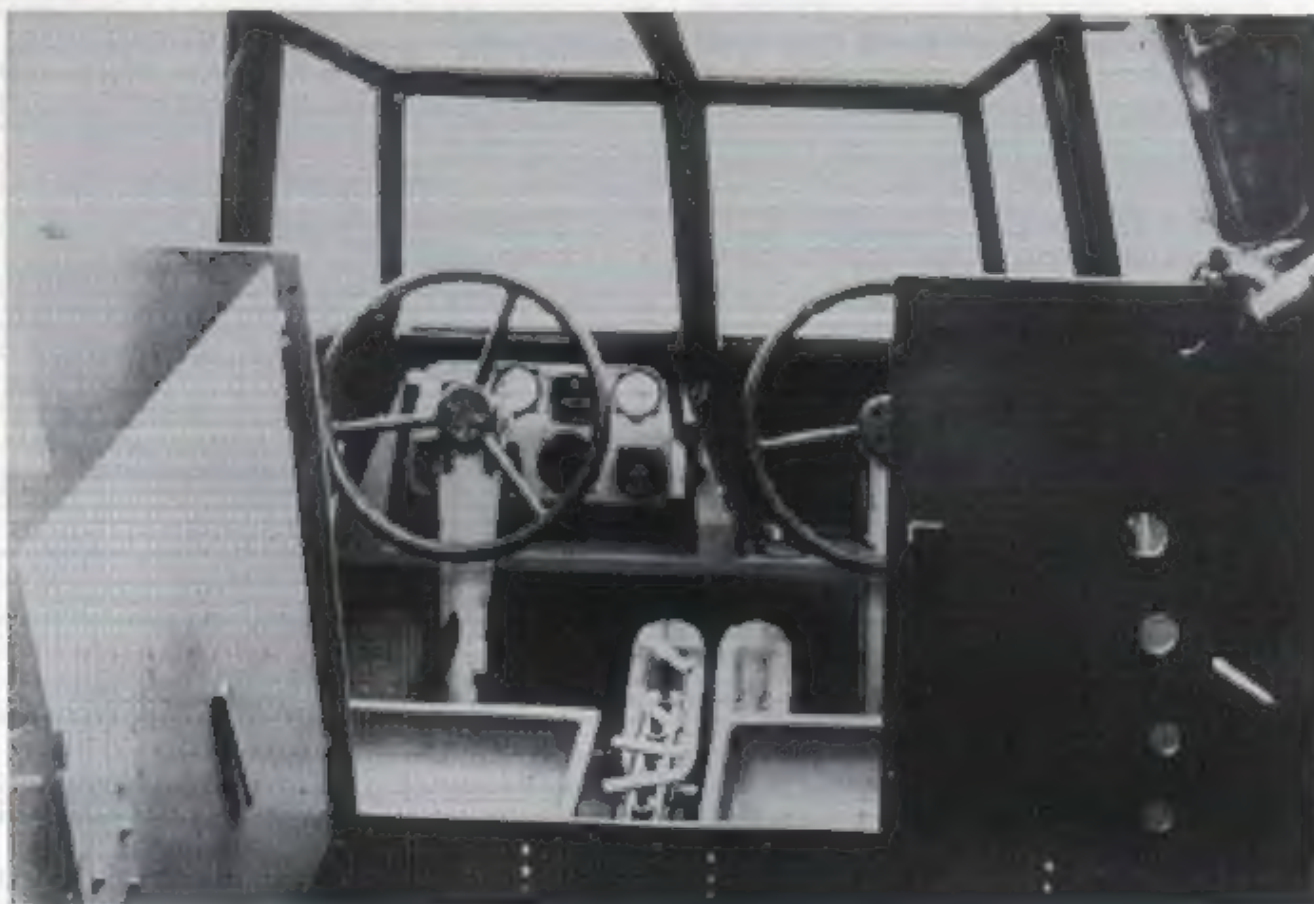
A transport glider DFS 230 with lengthened landing gear used to accustom future Me 321 pilots to the height of the cockpit, roughly 5 meters.





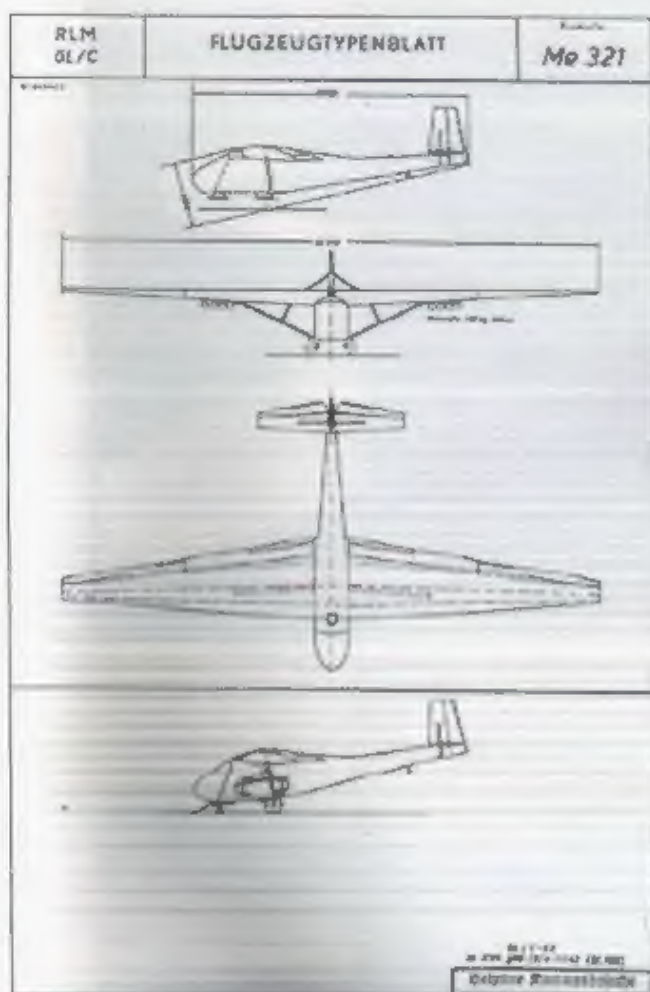
Top: The small and narrow cockpit of the Me 321A, laid out for a single pilot.

Bottom: The cockpit of the Me 321B. The armor plates in the foreground are temporary. Between the seats are the handles to jettison the landing gear. (HJN)

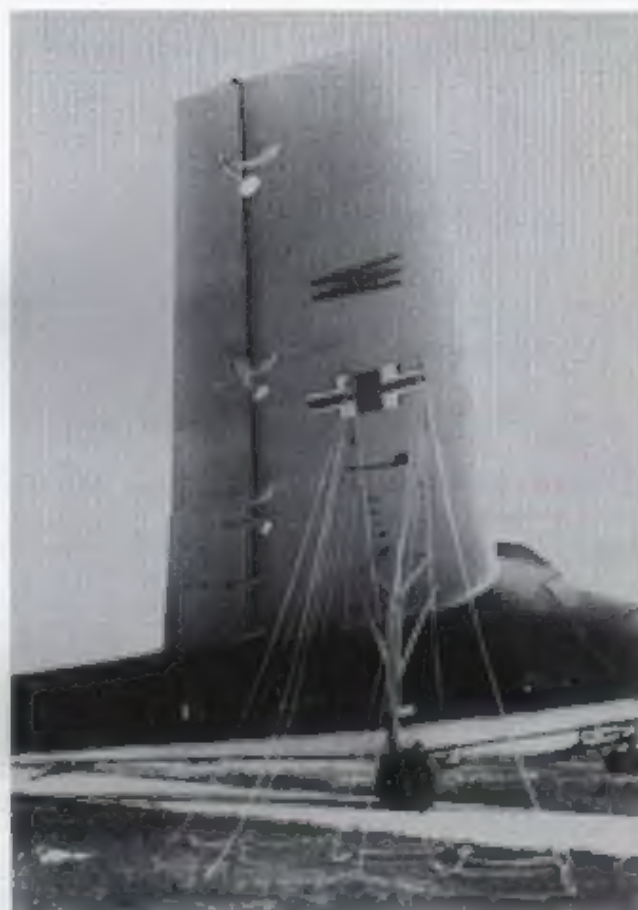


with Zeiler as the co-pilot. Hanna Reitsch was also on board the flight of the 5th. The Steel tubing for the fuselage was delivered by the Komotau branch of the Düsseldorf firm Mannesmann. The woodwork for the wings was performed at the May furniture factory in Stuttgart. Construction of production aircraft was in Leipheim near Ulm and Obertraubling near Regensburg.

The dimensions of this, the world's largest glider, were as follows: Span 55m, Length 28.15m, Height 6.8m, Wing area 300 square meters, Empty weight 11,290kg, Operational weight 12,000kg, Maximum cargo 23,000kg, this was calculated so that everything which could be transported on a standard train flatcar, would fit in the Giant. This meant that even tanks up to version IV were transportable. The standard takeoff weight was 35,000kg (maximum takeoff weight was 36,000kg), towing speed was 230km/h, landing speed 115km/h, glide ratio 1:16, sink rate 7.25m/sec. The Me 321A had a single pilot, the Me 321B had a complement of two pilots and an additional crew member.



Lower Left: The prototype drawing of the Giant from 1 January 1942 differs slightly from the actual production models.

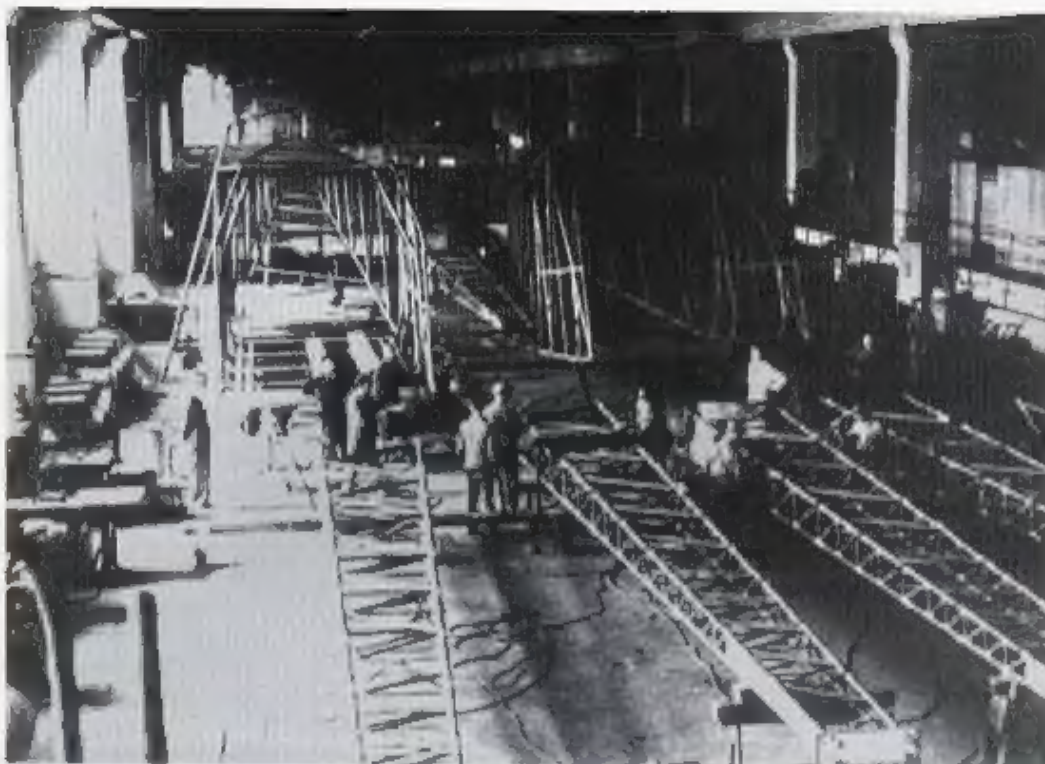


Top Right: Anchored Giant W7+SK. Attachments for up to four take off assist rockets can be seen under the wing.

Due to the shortage of aircraft that were capable of getting the Giant into the air, three twin-engine Messerschmitt Bf 110's in a triple tow (Troikaschlepp) configuration were used. This was extremely dangerous and during training, as well as operationally, severe accidents repeatedly happened. These accidents were often fatal, usually to the crew of the tow aircraft. Depending on gross weight, takeoff was assisted by two to eight reusable Walter Rockets attached under the wings with 500 kp thrust each. These rockets were jettisoned and were recovered by parachute. During 1942/3, eleven He 111Z became available that were much more suitable for towing the Giant.

This was a twin aircraft that had two He 111 H-6's connected by a newly constructed 6.15m long center wing section and a fifth Jumo 211 F-2 engine. The central German metalworks in Erfurt completed the conversions.





Top Left: Production of the heavy transport glider Me 321. Fuselage construction out of steel tubing. (MBB)

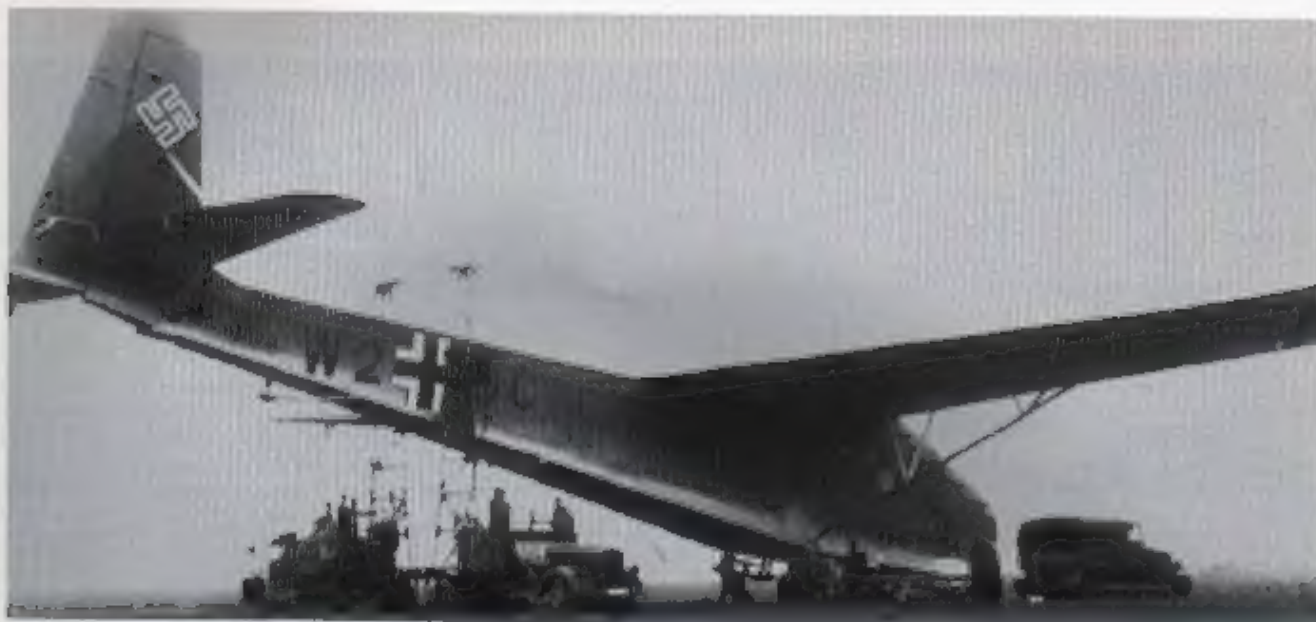


Center Right: Me 321A with a small cockpit in Leipheim. (HJN)



Bottom Left: Me 321B W8+SK with partial winterized windscreen.





Above: Lifting a Giant to repair the main landing gear.

Right: A Bf 110 for the triple tow showing tow cable and rear view mirror.

Below: Take off with a triple tow. The Giant gets help from Walter rockets to reach the necessary take off velocity.





Me 321 before take off, when jettisoning the main landing gear, and finally, the forward support wheels. (HWH)





A truly giant view: an Me 321 lifts off with rocket assist. (EP)

## Me 321 IN SERVICE

The first training of the tow pilots took place in the glider school of the Luftwaffe in Jessau near Königsberg. This school was founded at the end of 1940 and in the spring of 1941 was transferred to Echterdinge. The training unit for the Giant tows was located in Leipheim and Obertraubling was commanded by Hauptmann Mauss and Oberleutnant Kaltoff.

The first Me 321 went to Frankfurt but did not see service. After the invasion of Great Britain and was called off, these were put into storage. After the motorization of the Giants and Me 321 production was halted the training unit was no longer needed. At the start of the Russian campaign there were four Giant squadrons with six aircraft each. In July 1941, some Me 321's were transferred to the northern portion of the eastern front near Riga. The transfer, because of the range of the towing aircraft, required up to five intermediate landings. The first operational use of the special heavy glider squadron Number 1 was for supply flights on 21 September 1941 during the occupation of the island Osel in which four Giants took part. Supply flights also took place starting August 1941 from Orscha to Schatalowka, Rudakowo, Wyasma-Briansk, etc. After October 1941, the airfield conditions deteriorated so badly due to the weather that the Giants could not take off and few mis-

sions took place. In the spring of 1942, only two of the original four squadrons remained; Numbers 3 and 4 heavy glider squadrons of combat group 2. These were later combined as the heavy glider command Number 1 and received the He 111 Z as tow aircraft. In January 1943, 12 Me 321 gliders left Obertraubling towards Krim. During transit, multiple unscheduled landings took place as well as total breakdowns and by 31 January 1943, only three of these gliders were operationally ready. From January to March 1943, 11 Me 321 landed in Slawianskaja bringing provisions. There were numerous breakdowns and finally, only a single Me 321 returned to Obertraubling.

Data from 16 January 1943 shows that heavy glider command Number 2 was to be used for Woroschilowgrad with 10 Me 321's for service near Stalingrad. It was, however, too fast to build a support organization and on 24 January 1943, after much difficulty, only a single He 111 took off. Transport gliders were not used at all.

From May to June 1943, the heavy glider commands Numbers 1 and 2 were transferred from XI Corps in Obertraubling to Reims and Istres near Marseille. Under Captain Pohl, a total of 20 Me 321 and 11 He 111Z were registered. On 17 August 1943, a major air strike was made on the huge Istres airfield. In addition to the numerous dead and wounded, approximately 180 aircraft



Top: Triple tow to Ouel sometime between 21 and 26 September 1941

Bottom: Dual support wheels. This was probably to help with overweight cargoes or soft ground.







Top: Me 321 WZ+SH ready for take off in Orscha. (VK)

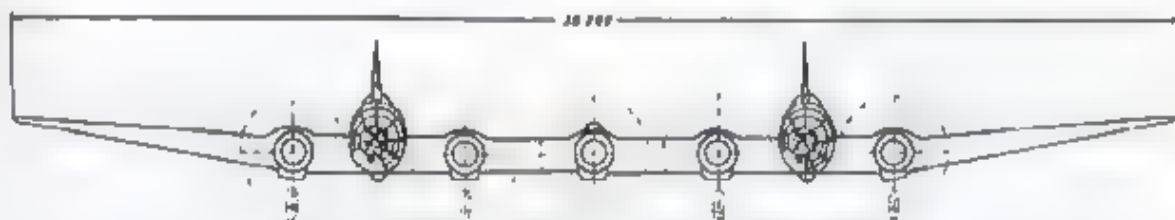
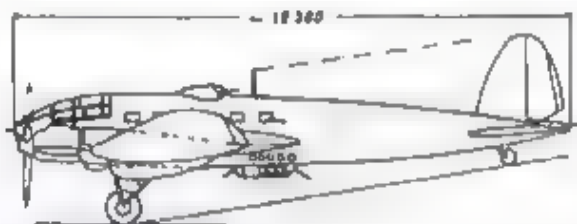


Above and below: tragic end of a triple tow in Orscha: a Bf 110 was lost, the Giant made an emergency landing and was later scrapped. (PP, HUN)

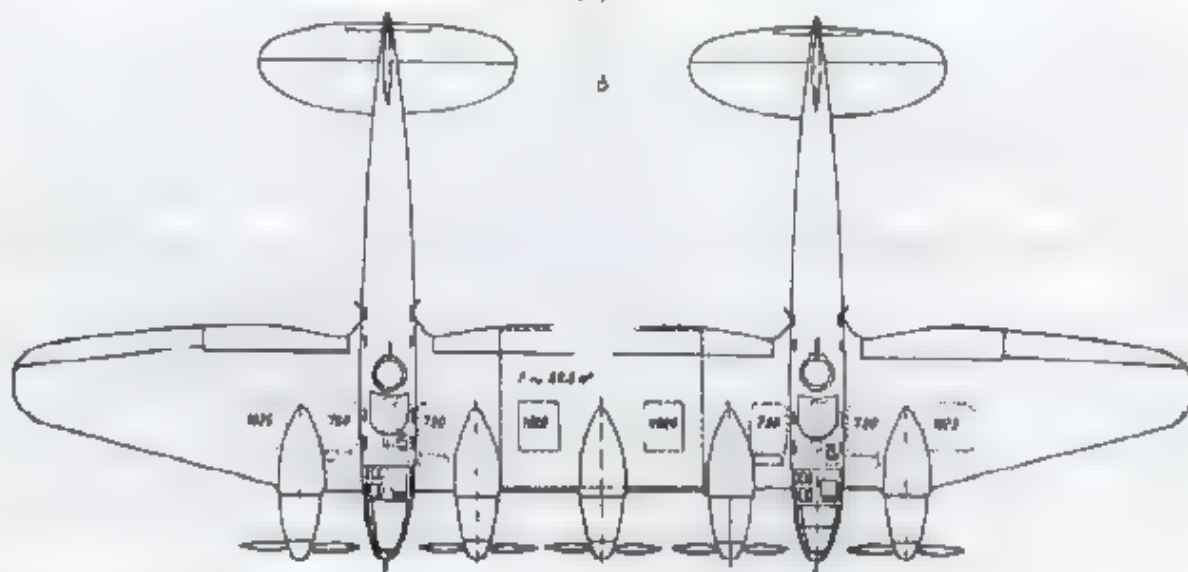


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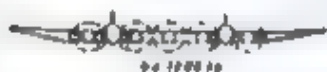
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**Abstract**

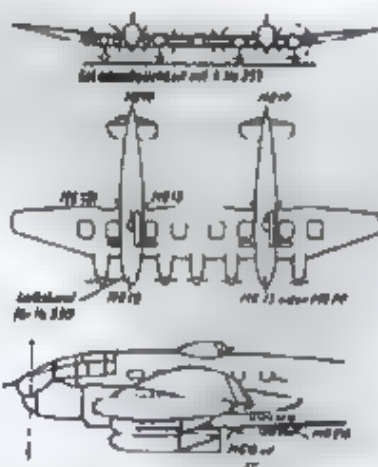


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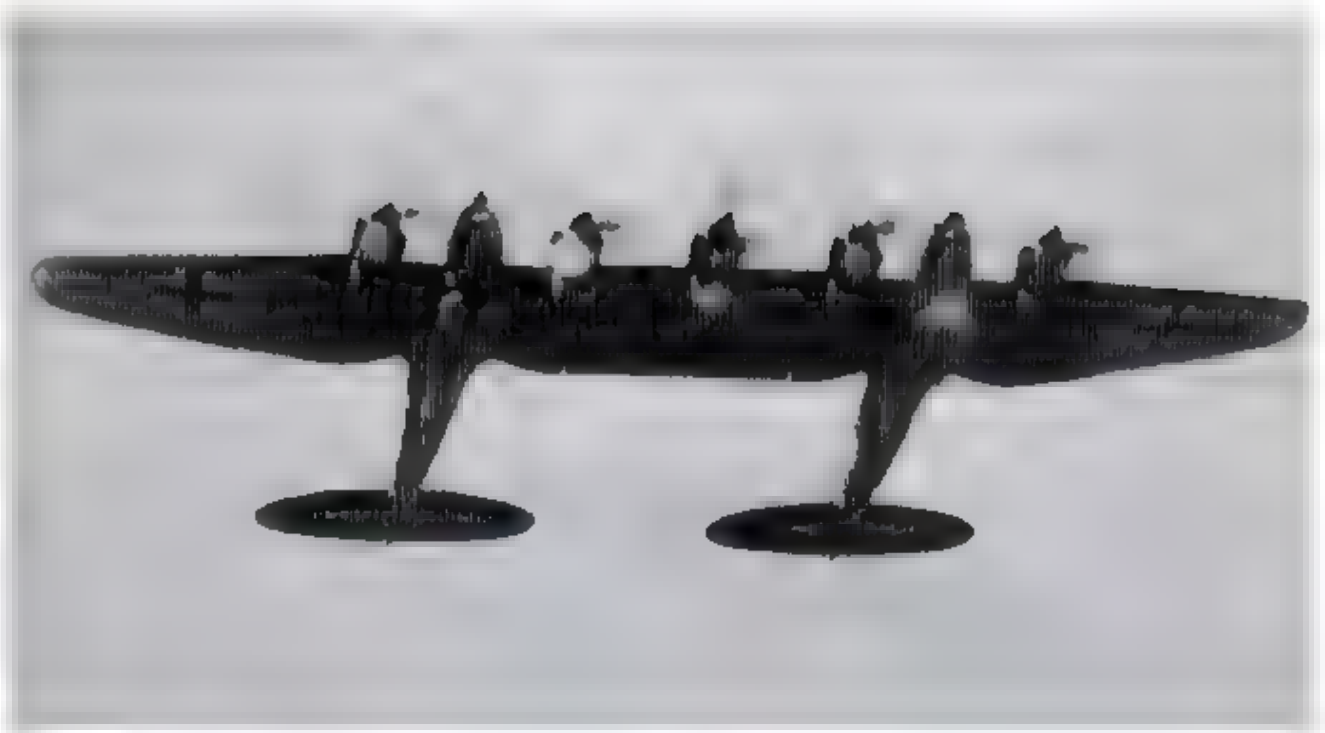


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### Unter der Russenhandelsfahne

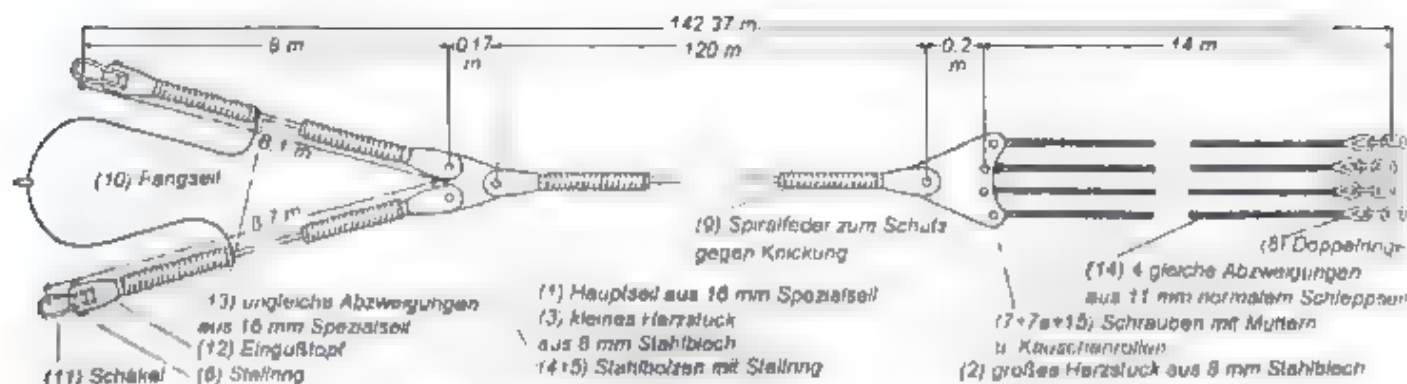




Top: A plane capable of towing the Giant was finally found in the He 111Z (air ministry diagram at left) – pictured in the TM+KW in flight (HWH)

Bottom. An He 111Z with supplementary fuel tanks stands ready.





Das Seilgeschirr besteht aus					
Punkt	Bezeichnung	Anzahl	Punkt	Bezeichnung	Anzahl
1	Hauptseil	1 Stück	8	Doppelringe	4 Stück
2	Großes Herzstück	1 Stück	9	Spiralfeder mit Stelling	8 Stück
3	Kleines Herzstück	1 Stück	10	Fangseil	1 Stück
4	Stahlbolzen 80 mm	4 Stück	11	Schäkel	2 Stück
5	Stellringe 18 mm	4 Stück	12	Eingußköpfe	2 Stück
6	Stellringe 14 mm	2 Stück	13	Abzweigungen für He 111 Z	2 Stück
7	Schrauben für gr. Herzstück	7 Stück	14	Abzweigungen für Me 321	4 Stück
7a	Muttern	4 Stück	15	Kautschukrollen	4 Stück

### Seilgeschirr des

### Schleppzuges

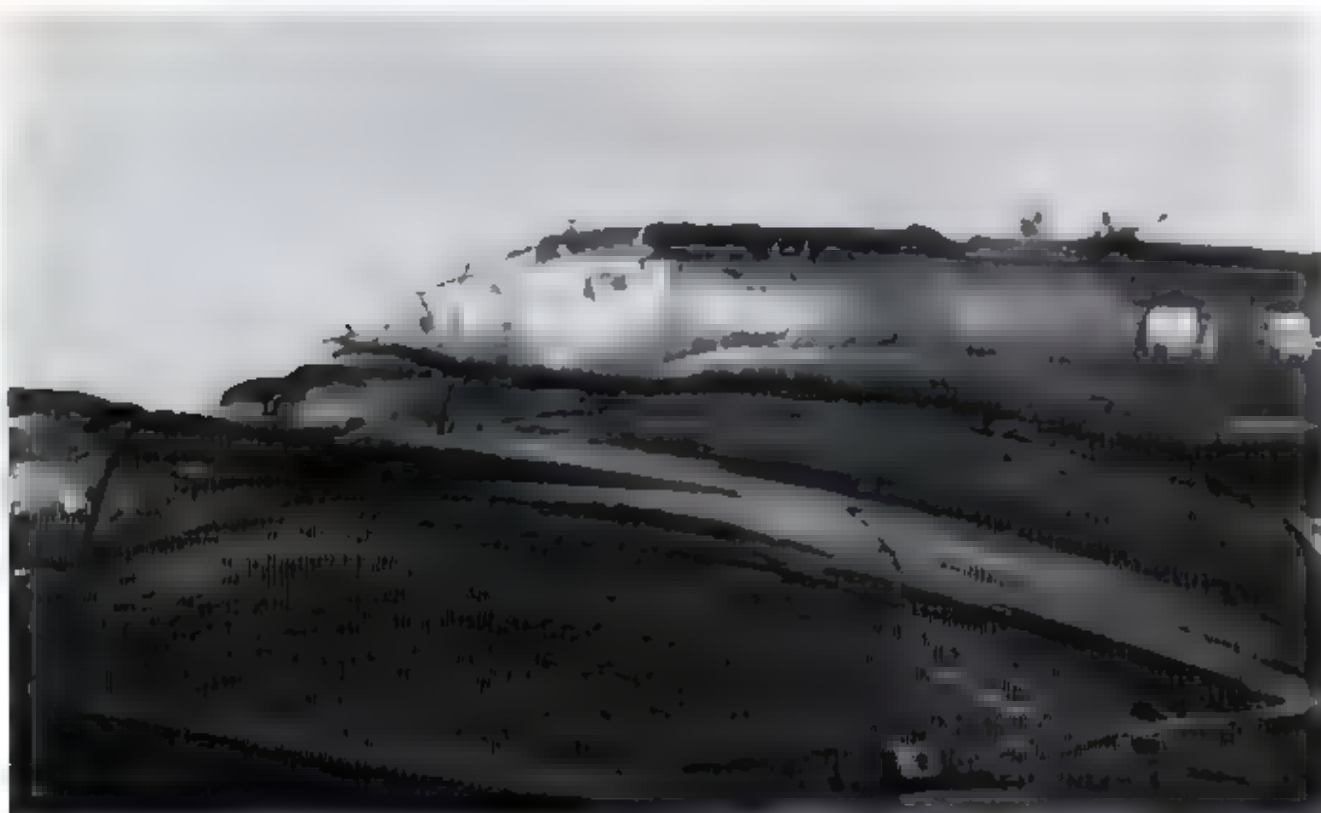
### He 111 Z - Me 321

Gesamtgewicht 205 kg

Lapheim den 8. Oktober 1942

Top: Details of the connection between the tow aircraft He 111Z and the heavy sailplane Me 321. The tow would not have been possible without the equipment shown here (copied from original documents). The entire construction is difficult to find in pictures.

## GIGANTENSCHLEPPER He 111Z



Bottom: The connection point of the He 111Z to the towing equipment are easily seen. The capture cable lays loose on the wing between the Auseluges.





Photo of a Giant in flight taken from the tow aircraft, an He 111Z. (HJN)

were destroyed or damaged. Five Me 321 were destroyed and two were damaged.

On 10 November 1943, the staff at the Dijon airfield reported their strength at 21 Giants of which four were operationally ready. The disbandment of the heavy glider commands took place in December 1943. The remaining Me 321 were scrapped and the He 111Z went to the 4th Squadron of Heavy Transport Group 2.

In the summer of 1944, the last three squadrons on the eastern front were put to use to supply troops which had been surrounded – they were one-way trips. In the meantime, all other aircraft had been destroyed or converted to Me 323.

### THE SIX-ENGINE Me 323

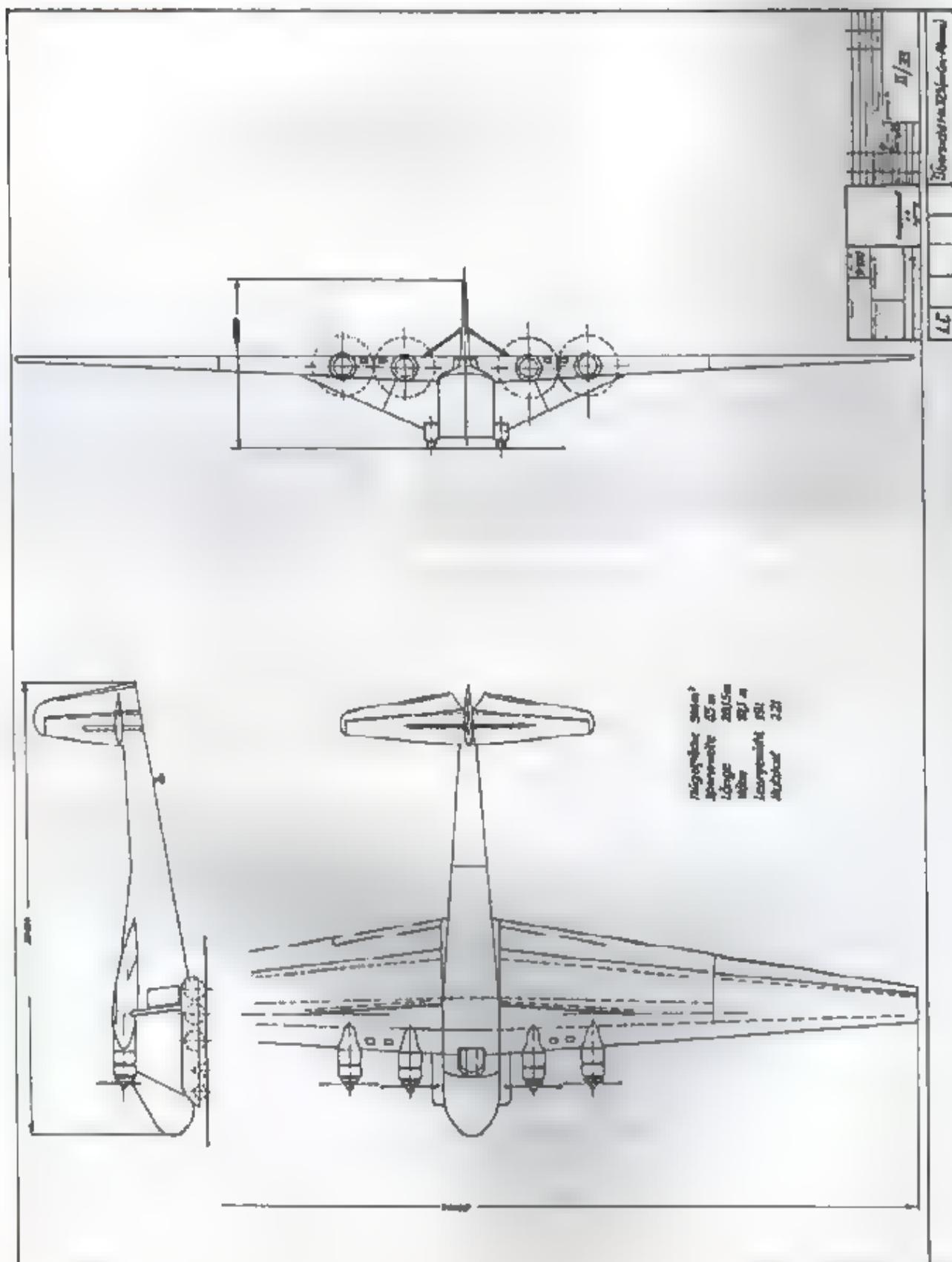
Almost immediately after start of production of Me 321, the powered version of the Giant was envisioned. Finally, at the start of 1942, this dream began to be realized. The Me 321B was to have been created by adding the French Gnome-Rhone 14-N-Beule engine. First four, then six engines were planned with two different versions: first, the original in the block 175; and second,

powered by the Lioré et Olivier LeO 45. Both powered versions used air-cooled 14-cylinder engines and were equally powered (990hp for climb, 750hp for cruising) but were not interchangeable.

The troops called these "Bloch" or "Leo" for short. The 14-N-48 spun clockwise, and the 14-N-49 spun counterclockwise. After the Me 323 E-1, came the Gnome-Rhone 14-R with 1180 horsepower for climb as standard. In the publication "Luftwissen", volume 11 from 1944, the six-engine Giant is described in detail. The publication is used heavily in the following descriptions. The strutted shoulder wing monoplane was constructed from a mixed bag of materials. Its frame was tubular steel. In fact, the steel tubing for the fuselage and wings were welded into independent structures. Construction of this lattice work frame required 100% reliability of the welds and was a huge risk. However, this proved its worth during operations: they were robust, forgiving, and were repairable using basic materials. The remaining portions of the wings were made from high quality wood.

The fuselage, consisting of a fabric covered lattice work frame, had a width of 3.15m and a height of 3.3m. Its entire length could be used for storage.

Three-view drawing of a Giant with four Gnome-Rhone engines.





The W1+SZ in flight, one of the first motorized Giants in Loophelm. The engines do not have cowlings and it still has the four wheel undercarriage. Below: The same aircraft on landing approach. The heavy gliders at the right of the picture will probably have engines installed.



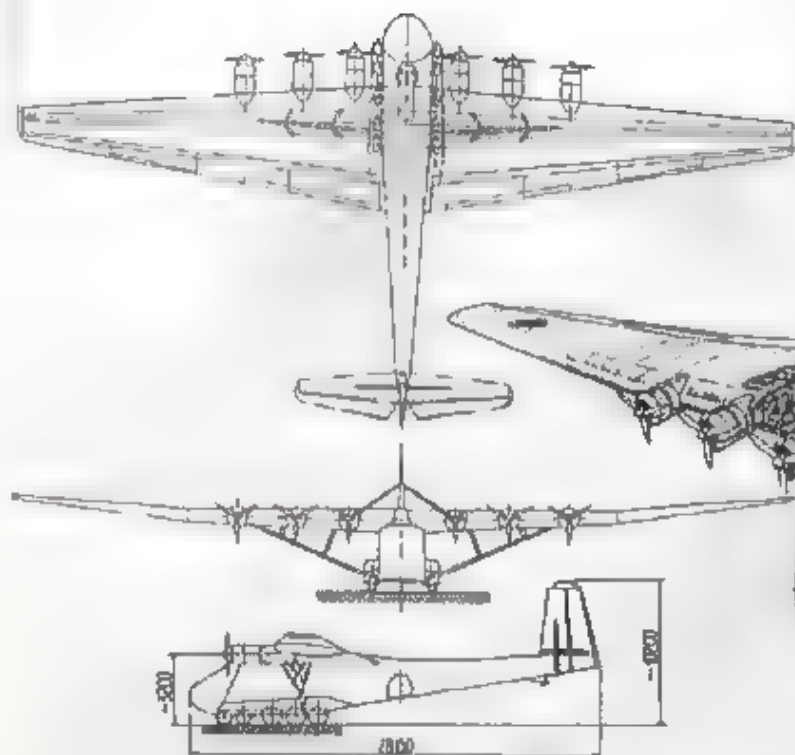


A close-up view of a four engine Giant. All of the characteristics of the transport glider Me 321 are still recognizable, such as the pitot tube in front of the cockpit, a row of windows in the fuselage, and four wheel undercarriage. The front wheels, however, are larger than the glider version's.

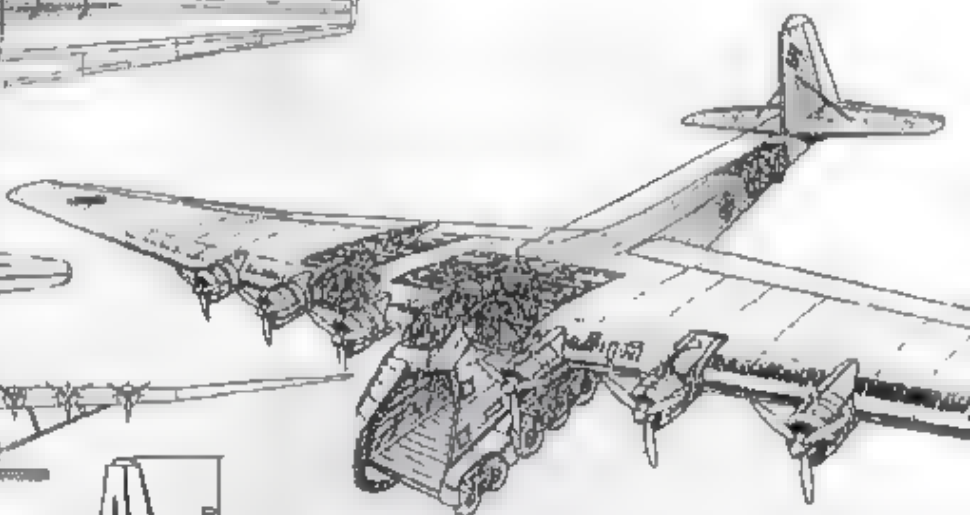


General Kurt Student inspects the training and Giant production in Leipzig. In the background a Me 323C is visible, one of the few built. The engines proved to be too weak.





Top: Three-view drawing of the final production model Me 323D with six Gnome-Rhone engines.



Center: Perspective drawing of the Giant as it was pictured in official literature.

Bottom: Here is a demonstration of how a complete, fully equipped company could be transported in the Giant. The soldiers sat in two layers on top of each other. With practice, the plane could be emptied quickly using the large clamshell doors. Mass transport of personnel was not often done, however, as the risk seemed too great. Usually, it was remnants of units, or support personnel which used the Giant as a last means of escape during a retreat. (EP)





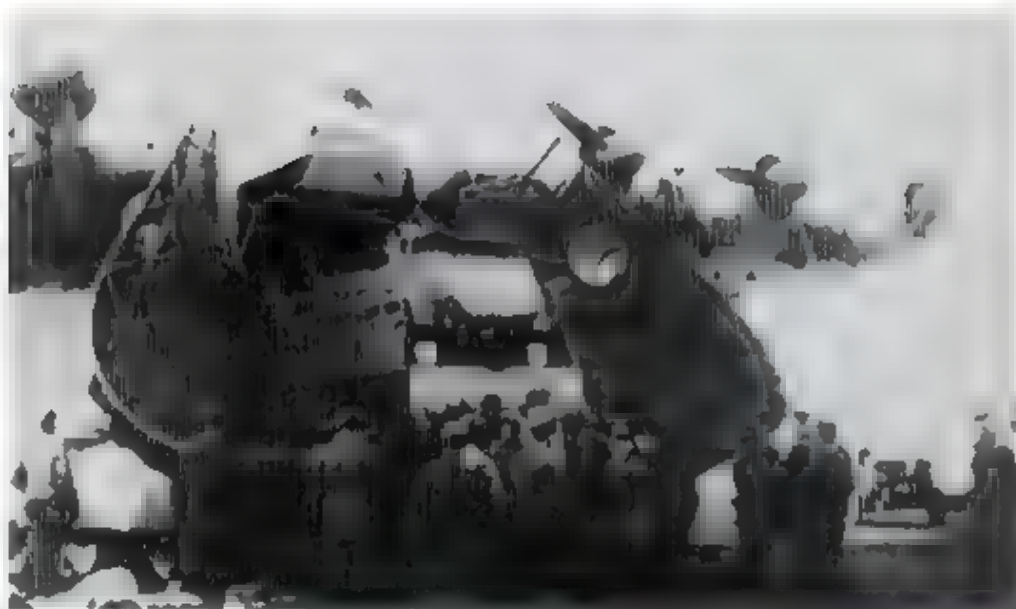
Top: One of many evacuation missions of the Giant. An Opel Blitz 1.5 ton Sankra is driven forward and the patient is transported further. (VK)

Bottom: An Opel Blitz bus in medical livery loads into the Me 323 (HWK)





Top Right  
Optimal space  
utilization. a VW  
staff car in the  
back of a 3 ton  
lorry which is  
driven into a  
Giant. (EP)



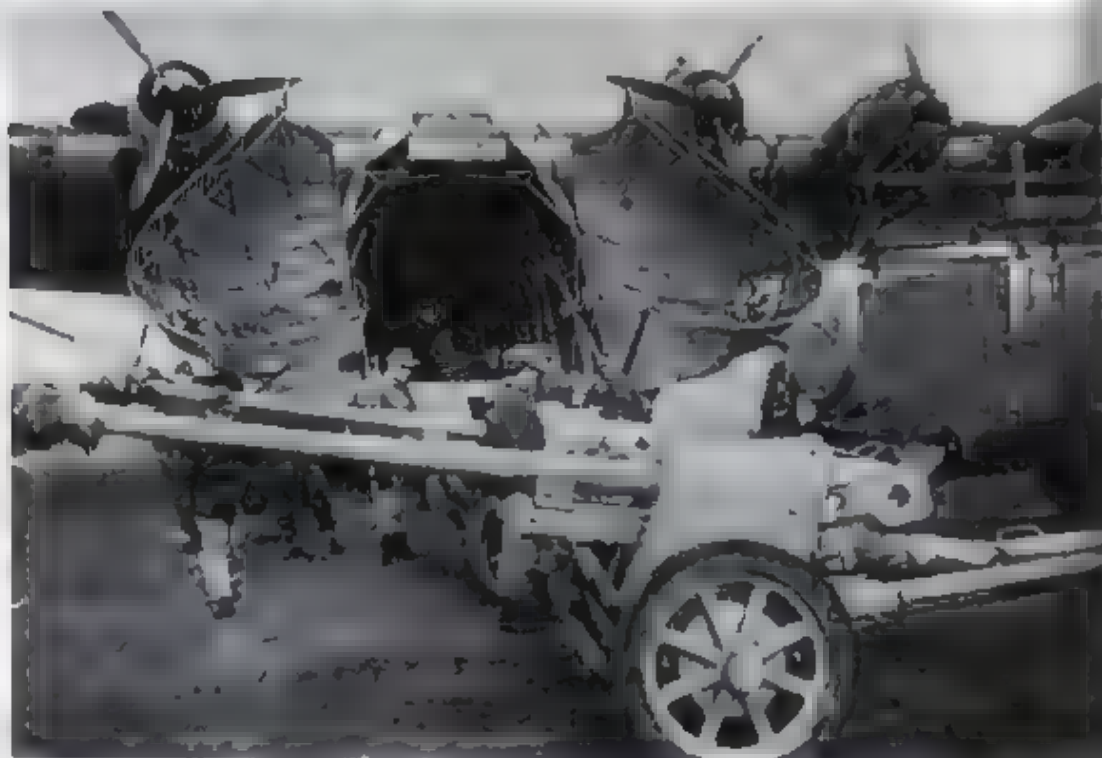
Center Left. Here  
a heavy personnel  
vehicle "Horch"  
is loaded,  
probably being  
used by the  
Luftwaffe (EP)

Bottom Right  
This is probably  
an exercise. A  
SdKfz 7 (8 tons)  
pulling a field  
howitzer 18  
(150mm) into a  
Giant. (VK)

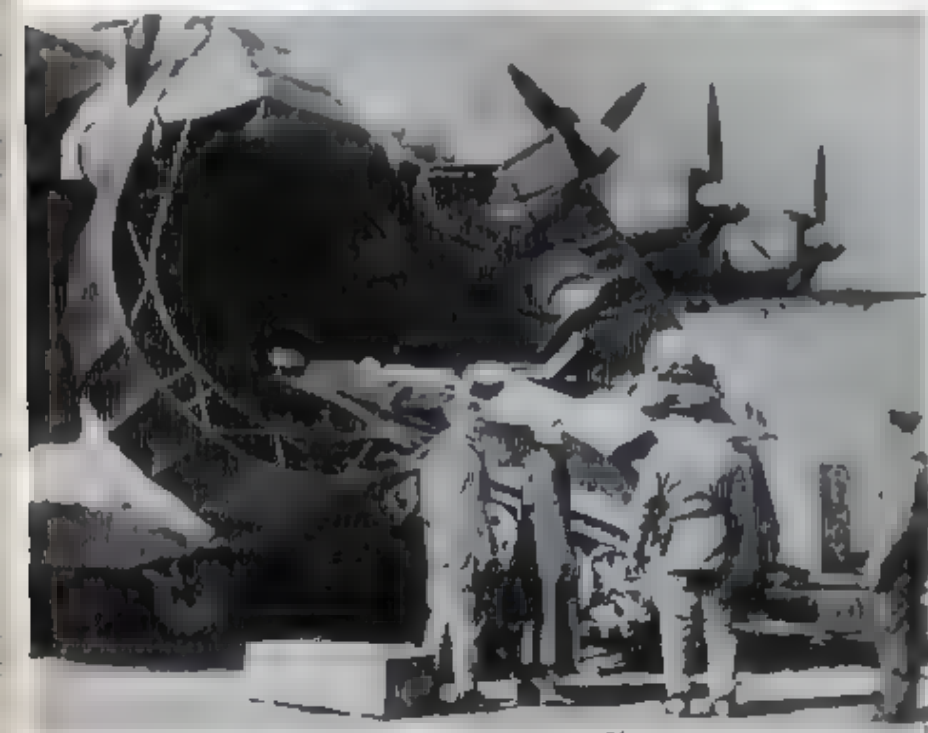




Top Left. There was almost nothing which would not fit inside a Giant (unless it weighed too much). Here a "Marder II" anti-tank vehicle (75mm-Pak 40 on a Panzer II chassis) is loaded in the Me 323. (HWH)



Center Right: Pak 40 (75mm) shortly before loading in a Giant which is having the protective covers removed from its engines. (PP)



Bottom Left. A vehicle of the Afrika-Korps on the ramp: a light armored car Sd. Kfz 250/1 with storage boxes attached.





Top: Two Grunts of Number 1 squadron, KG z.b V 23 are loaded with weapons. Here a light field howitzer 18 (105mm).

Below: Aircraft spare parts loaded from an Opel Blitz (S-type, 3 ton) directly into the Me 323 (EP, VK)



Its capacity was about 100 square meters. To ensure transportability of even the heaviest loads, 11m of the floor was reinforced. Like the Me 321 glider, the powered versions had a transport capability of a standard rail flatcar

Trapeze shaped wing supports braced the center section of the wings which contained the landing flaps and both of the ailerons. The wooden leading edges served to give the wings their shape, strong wooden ribs, joined by spars, gave the wings their strength

The cockpit was located in the upper fuselage just in front of the wings and approximately 5 meters from the floor. It was armored on all sides, had two seats, and dual controls. The instrument panel with all of its instrumentation was under the front windscreen. The radio operator was located in a special compartment behind the cockpit. The undercarriage consisted of a total of 10 wheels and was able use them like a conveyor belt to roll over ground obstacles. The wheels had circular shock absorbers. The rear six wheels had compressed air brakes. To reduce air resistance, the entire undercarriage was equipped with a wind skirt.

German engines could have been used just as well as the French. It would have made no difference if they had been air- or water-cooled. The installation could have been completed with very minor modifications to the mounting brackets. German engines were used experimentally in a few instances. The Giant was built with simple materials and these engines were not available for its production versions. To avoid use of long engine controls and linkages, the engines on each wing were controlled by a flight engineer who sat in a compartment near the wing root

Loading and unloading: opening both front clamshell doors freed the entire width of the fuselage was usable; e.g. vehicles would be directed to adjustable ramps to load and unload under their own power. At the same time, smaller crates and casks could be loaded from the rear doors. Cargo on a large aircraft can not be loaded any which way, it must be placed exactly to maintain the aircraft's center of gravity. Calculation of the center of gravity was not, however, a difficult process because in a correctly loaded aircraft, this would be over the rear pair of wheels.

One of the few Giants with LeO engines and "Heine" two-bladed, wooden propellers (Me 323D-2) of the Number 2 squadron/KG.z b V 323 in Italy. It is not known if the fire in the background is from an aerial attack or was caused by an accident. (PP)





Top. Additional photos of the Me 323D-2. Above a heavy armored communications vehicle Sd Kfz 263 (eight wheeled) is loaded (Castelvetro, Sicily, Spring 1943).



Left This D-2 is escorted by two fuel trucks. On the return trip from Africa to Italy, an additional fuel stop would be made in Sicily. (PP)

Bottom Right  
Dreslau 1943: In the background is a Me 323D-2, a Ju 52, and a ground attack aircraft Hs 129 (HWH)





A mechanism prevented the load from shifting. It was possible to load, for example, two medium 2-ton lorries, a 88mm flak cannon with ammunition, more than fifty 250 liter containers of fuel or approximately 130 men with combat gear. The Giant was rated for a 12 ton capacity, however it was flown with heavier loads. The same load would have taken five to six Ju 52's with 15 to 18 crew members compared to the Me 323's 5 man crew. The fuel use per ton was, however, only about half as high.

In the spring of 1942 the first test of the Me 323 V1 in Leipheim. In the Summer of 1942 Leipheim and Obertraubling began production of the Me 323D, originally using modified Me 321 frames. Companies which took part in production were Mannesman from Komolau (main spars for the center and outer wings), Mannesman from Rath (forward fuselage portion), Skoda from Pilsen (undercarriage), and May from Stuttgart (woodwork).

The complement of the Me 323 comprised the pilot and co-pilot, a radio operator, two flight engineers, and four to six loadmasters.

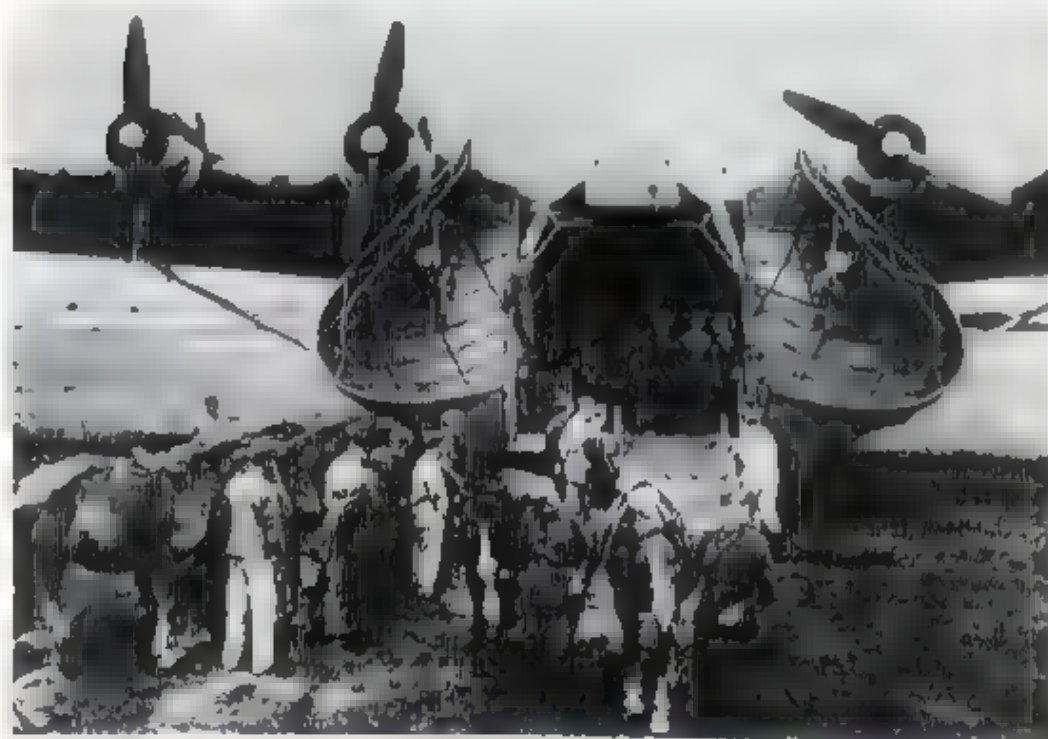
## Me 323 IN OPERATION

As far as is known, the following persons controlled the operational use of the Giants:

- Air Transport Commander, East, General Major Morzik,
- General of Fighters and Transports after October 1943, the commanding General of the XIV Air Corps, General Major Joachim Coeler (died 14 May 1955)
- Wing commander of Special Combat Wing (KG.z.b.V.) 323 (renamed 15 May 1953 to TGS) Oberst Gustav Damm,
- Damm's successor and last Commodore, Oberst Guido Neundlinger.

Commander of the wing's first group was Major Günther Mauss, commander of the second group was Oberstleutnant Stephan (killed on 22 April 1943).

The Me 323 was used exclusively by Special Combat Wing 323 (and its successor TGS). This transportation wing was composed of three groups, each group had three operational squadrons which each had six aircraft and a headquarters squadron with three aircraft. The Number 1 group was organized in 1942 in Leipheim and was transferred in 1942 to Eleusis/Athens and then on to Lecce. It then went to Pomigliano d'Arco with an alternate landing site at Campo di Cino, both near Naples. The mission of TGS consisted of flying reinforcements for the Afrika-Korps to Tunis and Bizerta. In the beginning, the Me 323 flew mostly weapons, e.g. the 88mm flak cannon, howitzers, armored vehicles, lorries, and also oversize goods which would not fit in the Ju 52. The Ju 52 flew mostly fuel and munitions. Near the end of the Tunisian campaign, the Giants began to transport these hazardous cargoes. On the return flight wounded, prisoners of war, and empty crates were carried along. These huge, but relatively defenseless, Giants quickly became targets for enemy fighters who could open fire from long range. Such an aircraft, especially when loaded with fuel, could be downed with only a few hits. Giants without flammable cargo were not so easy to bring down but time and again these huge birds were lost: through 18 December 1942 five aircraft were destroyed. One was strafed on the ground, one hit by bombs and the other three through accidents (emergency landing, ground accident to a wing, and an emergency ditching). On 9 April 1943, three Me 323 were shot down north of Cape Bone by a mixed bag of aircraft. The greatest loss came to the Number 2 group, which had been created in 1942 in Leipheim and had followed the Number 1 group to the



Practice loading horses on a Me 323D-2 in Dorastadt on 17 November 1943 (FS)



Above: At the headquarters squadron of the Number 1 squadron, KG.z.b.V. 323: Major Unruh (fourth from left) and five other squadron members pose in front of a Giant which has all its engines removed for maintenance (HWH)

Right: Repair of the control surfaces of the X1B. The main rudder is braced in place. (HWH)



Mediterranean in April 1943. Their group commander, Lieutenant Colonel Stephan, was killed on 22 April 1943 when 12 Giants were shot down by fighters of the South African Air Force (SAAF). This included almost the entire complement of Giants from the Number 2 Group and two aircraft from the Number 1 group. 119 officers, NCOs and crew members lost their lives; only 19 men were rescued. The 2nd gave its few remaining aircraft and personnel to the Number 1 Group and was essentially rebuilt from scratch in Risatissen/Laupheim for operations in the East.



Top: Because it was usually not possible to jack up the aircraft at operational airfields, a damaged landing gear had to be totally rebuilt, as with this D-1 of the Number 1 group, TG5 (HWH)



Bottom. This Giant is on platforms and the landing gear has been removed. The engine repairs are being accomplished on scaffolding. (EP)



Top Right. After the repair to the landing gear, the wind skirt is reattached. The front wheels are apparently new from the factory. (HWH)



Bottom. Maintenance at Leipheim was easy: here three Opel Blitz (S-type, three ton) serve as cranes holding the work scaffolding.





After a bombardment of Naples which also hit Pomigliano, the Number 1 Group was transferred north of Florence (operations to Corsica and Sardinia) and in the Fall of 1943 back to Leipheim for refit. The Number 3 Group, also created during 1942 in Leipheim, went directly to operations in the East and was disbanded in June 1943 after transferring its aircraft. From June 1943 until its disbandment on 23 August 1944, TG5 consisted of only two groups.

Top Left. Close-up of Giant's "Bloch" engines with variable pitch propellers. (PP)



Bottom. The Opel Blitz Crane vehicle (Type A, is one of the vehicles specially developed by the Kfz z.b.V for maintenance work on the Giants. (HWH)



Top: Maintenance of a Giant of the Number 1 squadron/TG5, the "Bloch" engines are preheated.



Bottom: An overhauled "Bloch" engine is ready for installation on the Me 323. (PP)

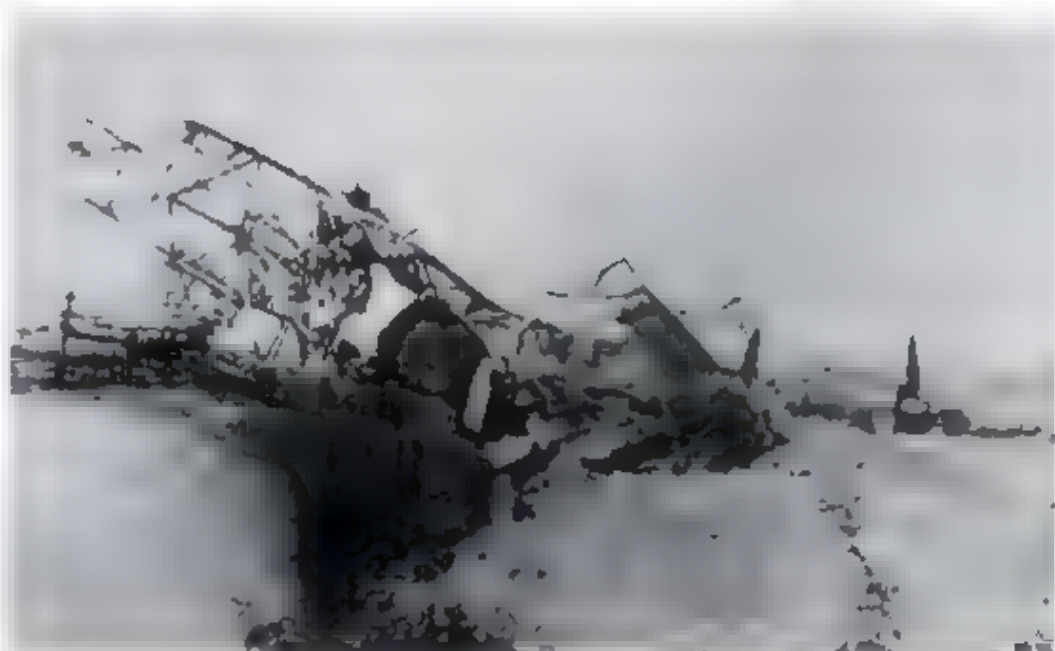


Top Right: Total  
loss of a Me 323  
in the East  
(HWH)



Center Left: A  
low ridge meant  
the end of this  
Giant which  
apparently had  
just been repaired  
(clean engine  
cowlings on the  
port side).

Bottom Right In  
Warsaw, this  
Giant slid off the  
airfield and  
stopped in a  
ditch. Only scrap  
metal was left of  
this heavy  
transport. (HWH)





The flight engineer for the starboard engines illustrates the huge size of the Me 323 (HWH)

### ... TO THE BITTER END

The Number 1 group transferred at the end of 1943 to Warsaw/Okecie and delivered goods to Kovnow, Riga, Plesta, Bobroisk, Shliomir, Kiev, Winniza, Uman, Kirovograd, Proskurov, and Nikolajev. Commander of the headquarters squadron, Major Unruh, retired and was replaced by Hauptmann Sepp Stangl. The Number 1 Group was transferred from Warsaw to Focsani, Rumania and was used to fly to Tirana, Odessa, Sevastopol, Mamaia. Lastly, it was transferred to Kecskemet, Hungary with flights to Focsani, Bucharest, and Ploesti. In the beginning of May 1944, approximately 140 female news assistants were flown from Ploesti to Kecskemet and about 100 soldiers were flown from Sevastopol to Bucharest by Hauptmann Stangl and his crew.

During the operations in the East, TG5 lost one Giant after another through continuous day and night sorties, through bombardments and strafing, and by a constantly worsening fuel situation. Aircraft X1C made a belly landing at Golte on 23 February 1944, X1M made an emergency landing in Orabovicze on 29 February because of partisan ground fire, and on 8 March aircraft

C8+CS, C8+GP, and C8+EP were intentionally blown up because the Soviets were approaching and the field was too soft for a take off attempt. Similarly, on 9 March at Nemestachi aircraft X1R was blown up because of the proximity of the enemy, as was aircraft C8+BB. On 18 March, aircraft X1V crashed in Odessa with 70 soldiers on board, 63 were killed. On the same day, X1H made an emergency landing 40km southeast of Stanislaw. On 22 March, aircraft C8+BF had an engine malfunction on take off, the Giant burst into flames and all on board were lost. On 27 March, the C8+DE crashed during take off at Warsaw. The same day, C8+CP had a collision on landing in Lamberg which killed two. The following machines were intentionally destroyed: C8+AF on 28 March in Ottynie, C8+AP on 29 March in Stanislaw, C8+FE on 31 March in Ottynie. The C8+CG aborted a take off in Rumania and left one dead and all other crew members severely injured. In Vienna Nuestadt, the C8+GP was lost (12 April) to aerial attack and the C8+BE crashed (15 April) in Belgrade. On 14 June, the C8+AF, C8+EG, C8+DE, and C8+CE were destroyed during a raid on the Kecskemet airfield.

Top Right:  
Whether alone or  
in a pack, supply  
flights for the  
Afrika Korps  
were done at low  
level over the  
Mediterranean,  
like this Me  
323D-6.



Center: Ap-  
proaching the  
airfield at  
Portughiano  
returning from  
operations in  
Africa. (VK,  
HWH)



Bottom Right  
Another dramatic  
loss. In  
Kecskemet,  
Hungary, a Me  
323 burns after  
colliding with a  
radio shack.  
(HWH)



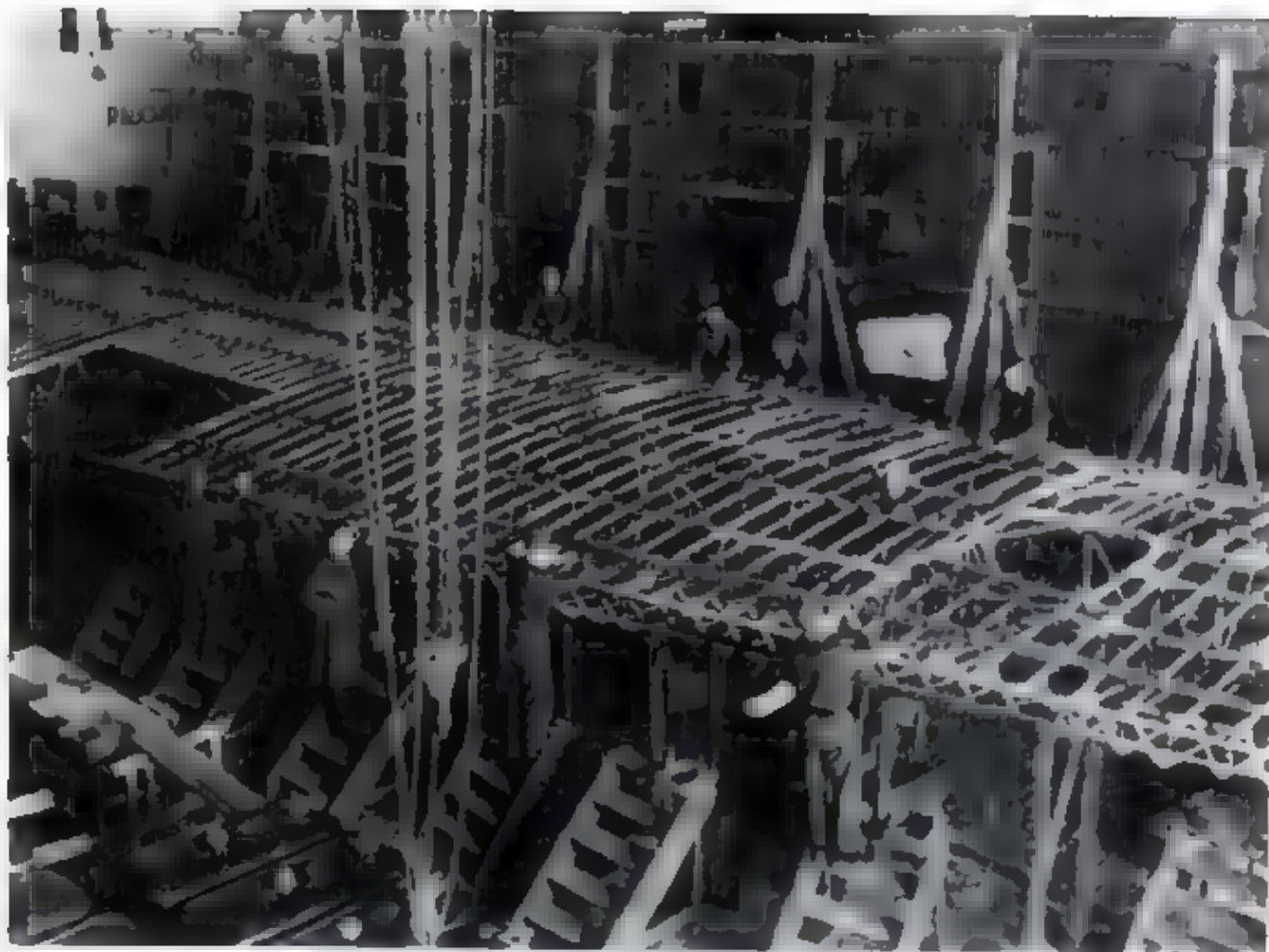




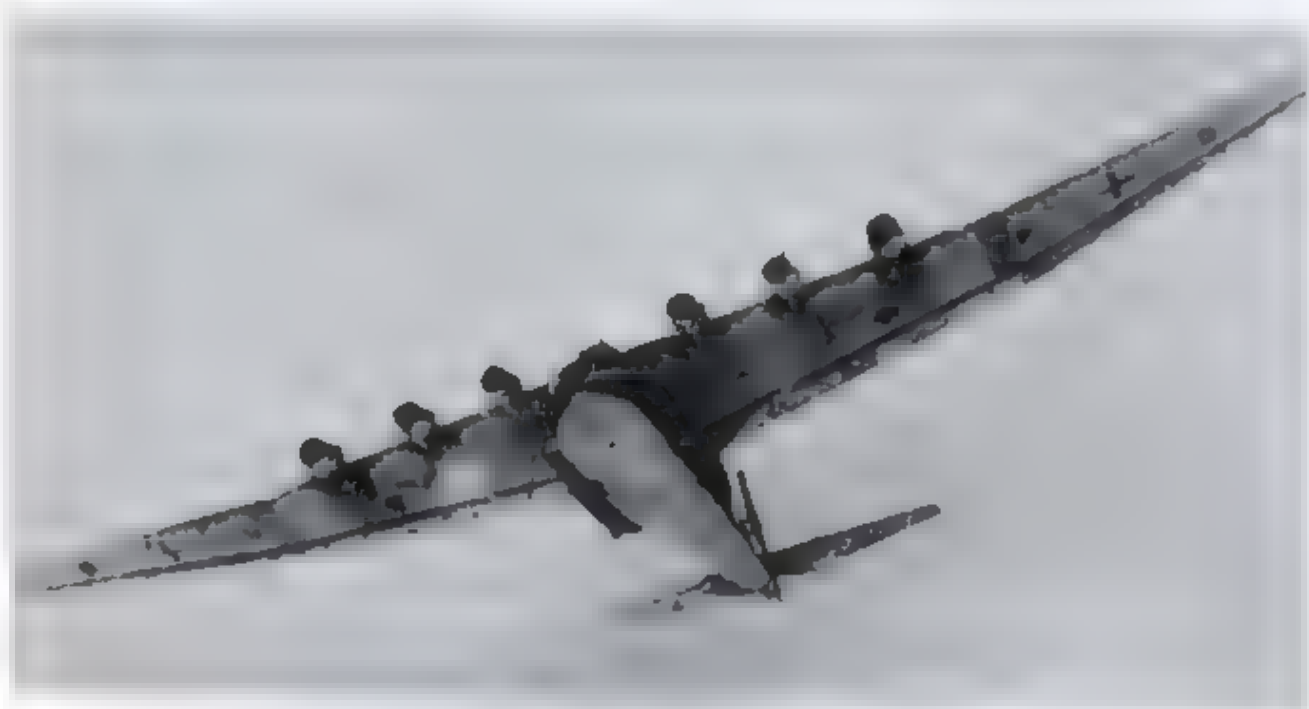
Top Left A captured Russian type SIS-5 lorry at the rear of a Me 323 with tactical number X1A. (PP)



Bottom Left Meeting of three different transport aircraft of the Luftwaffe in the foreground the Me 323, next a rare Ar 232A and in the background the venerable Ju 52. (IWI)



Top. Production of the Me 323E-2 with space for the HDL 151 turret in the wing. (MBB)



Bottom. A Me 323E-3 in flight; the numbers 2 and 5 engines are feathered.



Top: The take off assist rockets have fulfilled their purpose and are returned by parachute.

Center: The reusable rocket HWK 109 500. (EP, HJM)



Bottom Left: Major Günther Mauss, commander of the Number 1 squadron, TGS in the East. He was there at the beginning as was his technical officer Oberleutnant Sopp Stangl (in the cockpit). After Major Fritz Unruh departed, Stangl (Hauptmann at the time) took command of the headquarters squadron, which he led until the disbandment of the Wing. (PP)





Top: Typical HDL 151 wing turret of a Me 323E-2.



Bottom: Small celebration to commemorate the 500th trip of supplies delivered to Africa. The side gunners position of this D-1, armed with a MG FF, is a field modification to increase defensive firepower. A forerunner of the standard MG 131 armament (EP)



Air raid on Pomigliano -- a Giant goes up in flames.



The aircraft were seldom used due to the enemy air superiority. One of the few armed Me 323 E-2 WT's, the C8+GC, crashed on 3 August 1944 after the transfer of the Number 2 Group to Chrudim near Pardubice. One officer and 15 men died and three were severely injured, only one man was uninjured. On 18 August, the C8+EC was shot down between Insterburg and Riga by four Soviet fighters. Two days before the disbandment of TG5, aircraft C8+GR needed to make an emergency landing between Insterburg and Riga. After the disbandment of TG5, its personnel were put to use elsewhere, the unfortunate ones as ground troops.

What became of the remaining Giants after the disbandment of TG5 is not known. Isolated sorties may have been possible.

### VARIATIONS OF THE Me 323

As was mentioned, the forerunners of the Giants were called the Me 321 (in 1940), then the Me 263 (in 1941) and finally Me 321 (Glider version). The Me 321A had only one pilot and was built without modifications. The Me 321B, however, had 15 aircraft modified as motorized versions. The four engine versions were called the Me 321C (six aircraft), the six engine Me 321 D (nine aircraft). The modified aircraft were renamed as Me 323C and Me 323D. Nothing is known of the Me 323A and B.



Top. Increasingly the Giants were lost to air raids.

Bottom. A Me 323 under attack from a Beaufighter near Corsica. The Giant almost always lost in such encounters.







Top: Crash landing after an aerial attack. (EP)



Center: This is what is left of a Giant after being discovered and attacked by low-level allied fighters. (HWH)



Bottom: Only the steel frame, metal plates near the engines, and the armored cockpit remained after this Giant burned.



A rare photo: Me 323 carrying a Me 262 fuselage while being towed by an He 111Z. 11 engines powered this improvised "Big Bomb". The experiment failed and the project was not pursued further. (PP)

The Me 323D-1 (finalized in July 1942, first flight August 1942) and had Bloch engines with three bladed, adjustable pitch propellers. The D-2 had LeO engines with two bladed Heine propellers (for low level flights).

A D-3 is mentioned in some archives, but nothing further is known. The D-6 version had LeO engines and Raiter propellers. The D-versions could be loaded with up to 16 tons of freight. Interspersed there was a number of V-versions which served various purposes.

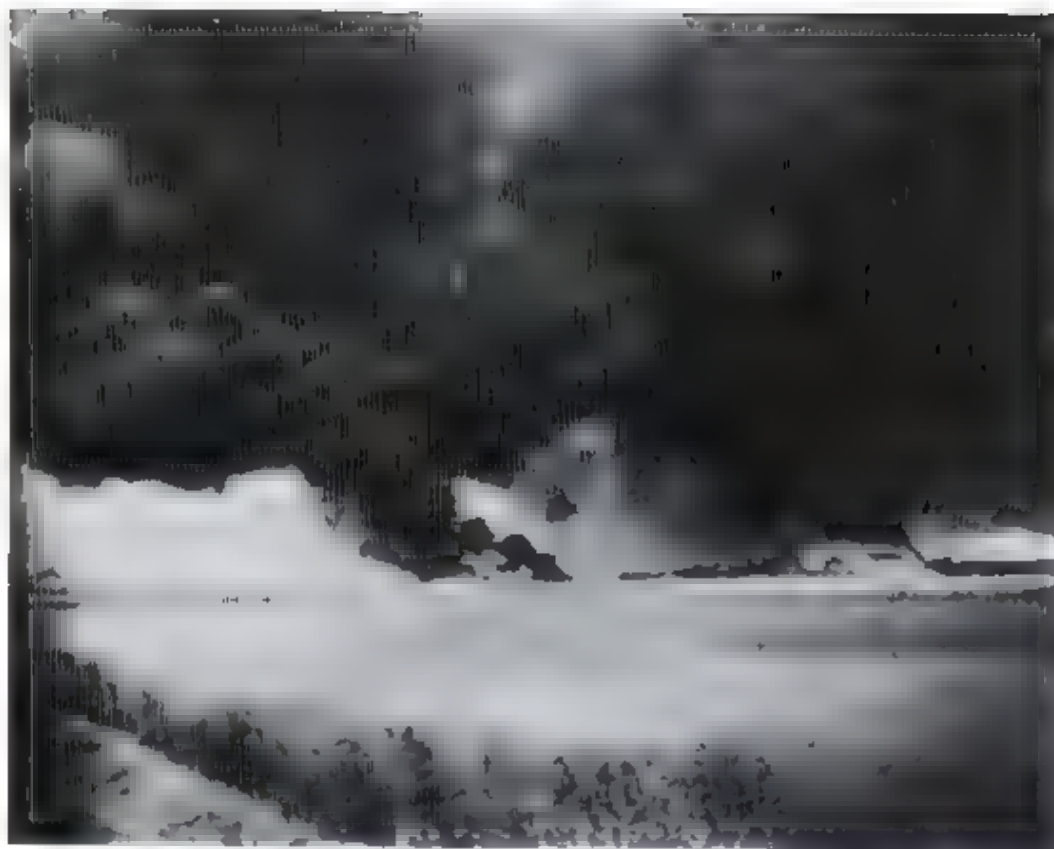
Spring of 1943 saw the delivery of the Me 323E-1. The aircraft had an empty weight of 29 tons and an official capacity of nine tons. It was equipped with the 1180 horsepower Gnome-Rhone 14-R engine.

The Me 323 E-2 had a take off weight of 45 tons but could also only transport nine tons. This was delivered in November 1943. The armament of the various versions were not standardized, some had none, some had extra armament installed by crews in the field.

An exception is the so-called "Weapons carrier", the Me 323E-2 WT which was not envisioned as a transport. Heavily armed, with a 17 man crew, it was to be a "Flak Cruiser" and fly support. In memory of Major Mauss, no WT's were assigned to the Number 1 Group. None are known to have been assigned to the Number 2 group either. Probably, the WT's were directly subordi-

nate to the Wing and were used as needed. The log book of TG5 states on 28 March 1944, "No. 1/TG5 transferred to Focsani, 2 Flak Cruisers are to be used" and on 3 August: "during the transfer of the 2nd/TG5, crash of the Weapons carrier Nr. 331004 C8+GC." A WT was transferred in April 1944 to Finsterwalde for airfield defense. At the time, the airfield was home of KG 200 with captured B-17's and the WT used its weaponry to support the weak fighter defense. There was more than one, but definitely very few WT built and put into operational use.

During the development by Messerschmitt, an Me 323F was presented to Zeppelin (6 Jumo 211F engines, completed on 6 July 1943). Further developments were as follows: 2 Me 323G, developed entirely by Zeppelin, probably dates from 20 October 1943, and 2 Me 323H, a project which was officially mentioned on 18 May 1944. Zeppelin and SNCASO proposed in 1944 Project ZSO 523, a six engine, heavy transport (Gnome-Rhone 18-R engines) with a wing span of 70 meters and a take off weight of 95 tons with a capacity of 46.8 tons. Although this transport was a new development, it is easy to see its ancestry. No developments after the E-2 came out of the planning stages.



Top Left. The end of TO3 an air raid on the Kecskemet airfield on 14 June 1944 destroyed almost all remaining Giants.

Bottom: Only a few were built and never appeared in great numbers as escorts: the "Weapon carrier" Me 323E-2/WT (HWH)

Finally, it should be mentioned, that it was also planned to have Giants with pulse engines or steam turbine engines to assist in take off. In Vienna, a steam turbine engine was being developed. The air ministry suggested it be installed in the Giant, but this was never followed. In June 1942 Messerschmitt suggested that use of 12 Argus Type A8 014 (each with 300 hp thrust) or 24 smaller (150 hp thrust) take off assist rockets. This suggestion was not accepted.

Between May and November 1941, 166 Me 321 were delivered; 15 of which were converted into Me 323. With the 198 newly constructed Me 323, a total of 213 were delivered. It is not known if even one of these forerunners of today's combat transports survived the Second World War.





Top Right  
Recognition  
feature of the  
WT was the four  
HDL 151/2  
turrets on the  
wings as here on  
.+HT (MBB)



Center Left: An  
additional  
recognition  
feature is the  
nose turret which  
inspired the  
nickname  
"Rhino." (HJN)

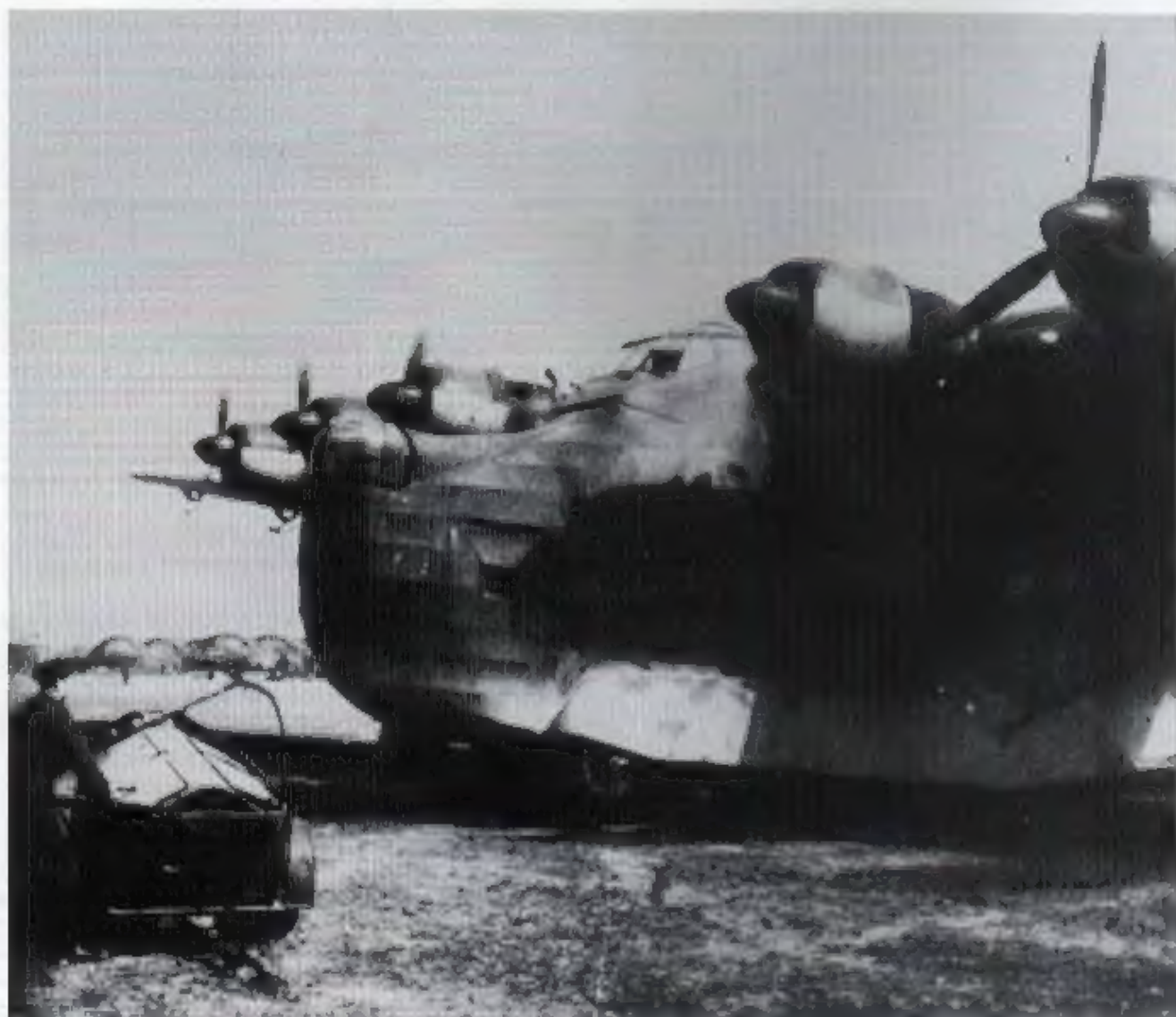
Bottom Right.  
To, ephoto  
picture presum-  
ably the E-2  
CR+GC. Accord-  
ing to the wing  
log book, the  
aircraft crashed  
during the  
transfer of the  
Number 2  
squadron, TGS  
on 3 August  
1944. (HJN)



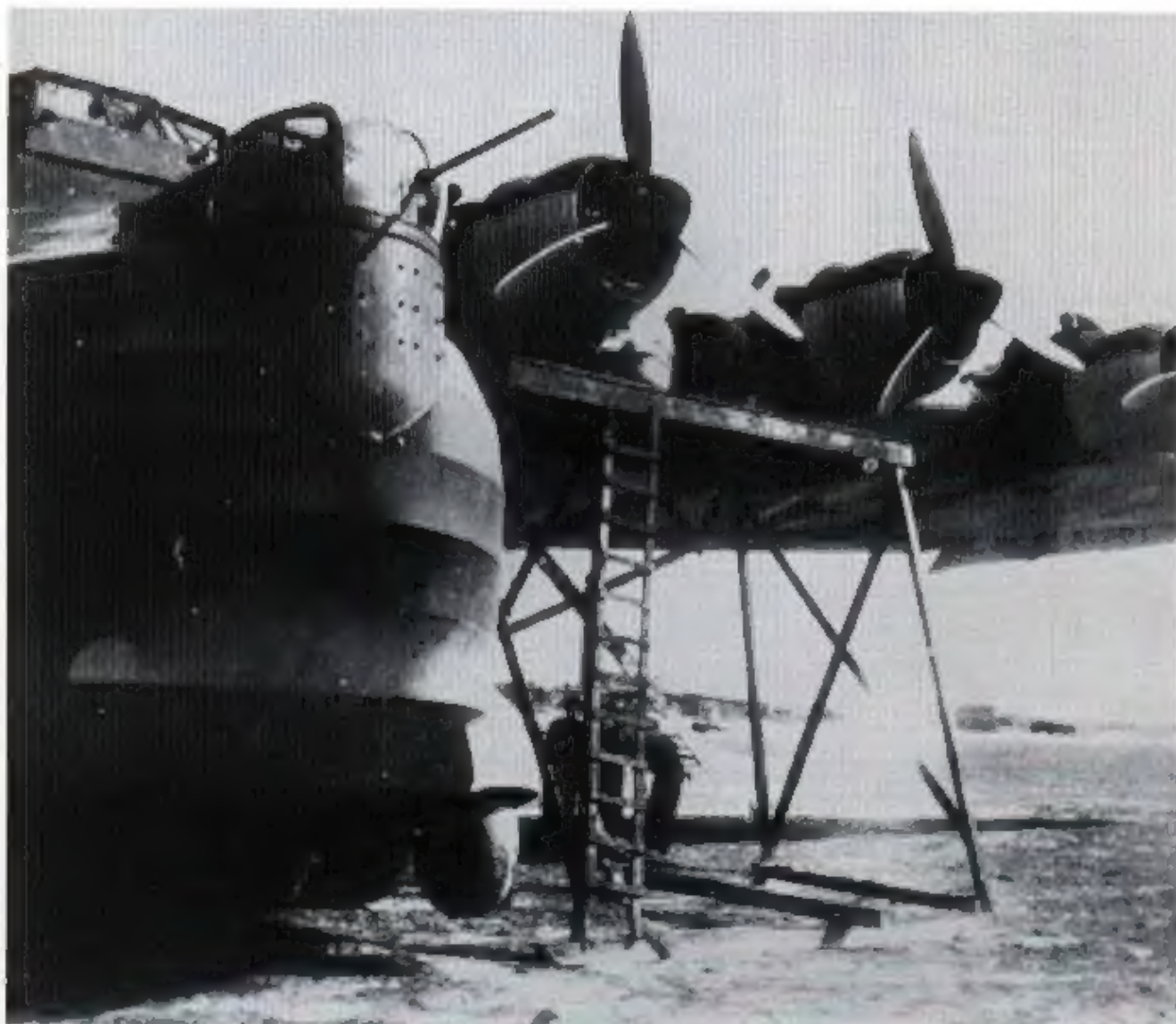


Weapon carrier RL-UE with engines running. (HWH)

Right: Four members of the crew stand in front of weapon carrier RL+UE in Warsaw.  
Below: The WT being prepared for take off, engines were started in order. (HWH)

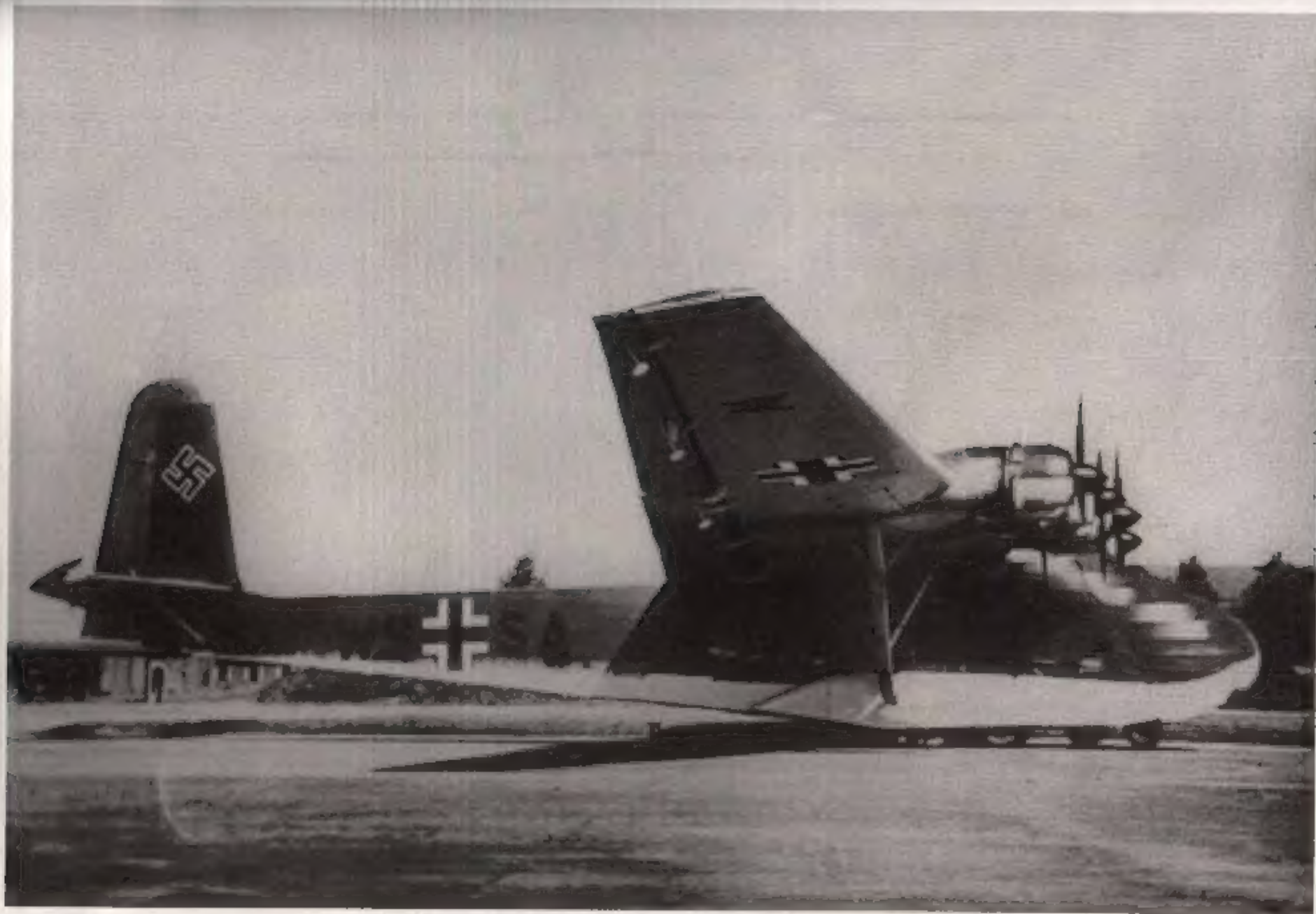






Above: The WT, like all other Giants, needed maintenance.

Left: A close-up, recognizable are both inner wing turrets and the fire direction officers position. The window just to the right of his position is for the radio operator.



Me 323, serial number W9+SA, one of the first six engine Giants converted from the Me 321. (HJN)





Repairs to the landing gear of the Giant nicknamed "Himmelslaus" (Sky crawler).



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